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READINGS IN CONTEMPORARY PROBLEMS IN THE UNITED STATES

READINGS IN CONTEMPORARY PROBLEMS IN THE UNITED STATES

EDITED BY
HORACE TAYLOR

VOLUME ONE

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PREFACE

SINCE the academic year 1919–1920 there has been a required course for freshmen in Columbia College entitled "An Introduction to Contemporary Civilization in the West." At the April, 1928, meeting of the Faculty of Columbia College, approval was given to a plan to expand this course into a two-year program. This action necessitated a revision of the course for freshmen and the preparation of a new course to be required of sophomores. The revised course for freshmen, consisting of a study of the origins and genesis of the ideas, customs and institutions of the contemporary Western World, was introduced in the academic year 1928–1929. The new continuation course for sophomores, consisting of a study of insistent economic, political and broadly social problems which exist in the United States today, will be introduced in the academic year 1929–1930. The entire two years of study is planned as a single unified project.

In preparing the course for the sophomore year, use was made of such text materials as fulfilled the requirements and aims of the course and were available in book form. It was found, however, that many of the precise subjects which it was desired to include were not treated adequately for the purposes of the course in books already published. It became necessary, therefore, to prepare two volumes of text materials, consisting of reprints of articles which appeared originally in magazines and journals, public documents, extracts and abridgments from books, and some original essays. These volumes were not designed to have any integration or comprehensiveness of their own, but rather to supply text materials covering certain topics, and to supplement and complement other books used in the course. The unity and continuity for the sophomore year of study is supplied by the syllabus, *An introduction to contemporary problems in the United States*, published by the Columbia University Press.

The present book is the first of these two volumes of text materials. Volume Two has been prepared under the joint editorship of Joseph McGoldrick and the present writer. These volumes have no purpose other than the one for which they were designed, i.e., to form an integral

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part of the course for sophomores in Columbia College. They should be used only in conjunction with the syllabus of the course. The reader also should bear in mind the fact that this course is preceded by a year's study of the genesis of western civilization.

The staff of the course, as well as the editor, are deeply grateful to the following publishers and publications for permission to reprint materials contained in this volume: The National Bureau of Economic Research, Inc.; the *Atlantic Monthly; Factory and Industrial Management;* the Harvard University Press; the *American Economic Review;* the *World's Work;* the New York *Herald Tribune Magazine;* the *Survey Graphic;* the *New Republic;* the National Industrial Conference Board; Harper and Brothers; Prentice-Hall, Inc.; the *Annals* of the American Academy of Political and Social Science; the Columbia University Press; the Century Company; Charles Scribner's Sons; the University of Chicago Press; the Johns Hopkins University Press. We are under an obvious and very large debt to all of the authors from whose writings we have drawn.

Among my colleagues in Columbia, I have received invaluable advice and assistance from Donald C. Blaisdell, Thomas C. Blaisdell, John Maurice Clark, Robert Lee Hale, Donald J. Henderson, Roy E. Stryker and Rexford G. Tugwell. To John J. Coss, John F. Fennelly and Joseph McGoldrick, who assisted materially in the planning of both the syllabus and the text materials, and who have given this volume the benefit of their critical opinions, my obligation is especially large. C. F. Ansley, of the Columbia University Press, has laid me equally in his debt by his scholarly and painstaking work in preparing the manuscript for the printer. For his consistent and cheerful coöperation in securing materials required in the preparation of the volume, I am indebted to Ralph W. Miller, Librarian of the College Study.

H. T.

Columbia University.

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I. THE MONEY ECONOMY

By Horace Taylor
Assistant Professor of Economics, Columbia University

Let us imagine, for a moment, that the much-speculated-about traveler from Mars has completed his visit to the earth and has just returned to his home. Let us imagine further that this distinguished explorer is invited to deliver an address before the Martian Society for the Advancement of Understanding. The subject assigned him is, "How the People on the Earth Spend Their Time." Perhaps it is presumptuous for us to guess what this inhabitant of another planet will say about us. Yet, since we have been asked to make just such a guess, our conjecture is that he will express views which, translated into English, are as follows: "The people of the earth spend their time in an infinite variety of ways. Beyond the fact that all of them do those things made necessary by the weaknesses and limitations of their bodies, such as eating and sleeping and blinking their eyes, there are wide differences in the ways that different people spend their time. Yet in those parts which are called the 'civilized sections of the earth' there is one general condition which is fairly common. Most of the people of those sections employ their time in making and spending little discs of metal and rectangular pieces of paper, which are called 'money.'"

If the Martian scholar were able, in his address, to elaborate this general statement into an account of what this condition of making and spending money incomes means in its wider ramifications, he would supply his auditors with a rather accurate knowledge of how the civilized people of the earth spend their time. Or, more precisely, he would give a very full account of how people make a living and how they live together in the western and westernized parts of the earth today. Since these are the questions to which we are addressing our minds, we may, with profit, expand somewhat the supposititious statement which we ascribed to the fictitious traveler from Mars.

There has never been another time or place in which the activities and

interests of people have been as closely concerned with making and spending money incomes as in the western world of today. In fact a great many of the features which differentiate western civilization of the 1930's from the cultures which exist elsewhere or have existed in the past are intimately associated with, and dependent upon, the modern money economy. Some of these differentiating characteristics are: industrial urbanism, an elaborate division of labor, an unprecedented scope and volume of commerce, highly capitalistic business, the wide prevalence of a wages system. These material conditions in turn are accompanied by special forms and phases of non-material human interests, such as literature, art, the family, and religion. We cannot say that the money economy caused these conditions to exist; we can, however, say that they could not exist, in the forms in which we know them, in the absence of the money economy. Indeed, we need not, at present, concern ourselves with problems of causation. It is enough to realize that the several conditions coexist and are mutually related to each other.

The genesis of the money economy

In order to understand the contemporary prevalence of a money economy — an institutional system in which the activities and interests of people are centered about the making and spending of money incomes — a brief account of its genesis will be of use. The following quotation from the pen of Professor Mitchell traces the important developments and facilitates understanding of the present scene by pointed comparison with the past.

> To grasp the rôle played in our lives by this form of organization [the money economy] is difficult, because we who have grown up in a business economy have had our minds molded by it. In studying the institution as it now exists, we are practicing a sort of introspection into our own mental processes. To get an objective view of the present situation, our best course is to trace the stages by which the uses of money have grown. What is so familiar and organic a whole to us that we hardly see the need of analyzing it, will dissolve into thought-suggesting parts as we note how our race has slowly evolved one element in the complex after another.
>
> The faltering first steps toward the use of money were taken in those dim stretches of time when men were beginning to exchange gifts and then to barter for the sake of goods, to evolve the concept of ownership, to express values in a

common denominator, to use some commodity as currency, to hold markets, to develop specialized occupations, and to mix trading as a business with cattle-lifting, man-stealing and town-sacking. Of all these slow developments what little information is available comes mainly from anthropologists and archaeologists and is loosely tied together by conjecture.

When written history begins in Babylonia and Egypt, in China and India, in Europe, in Mexico and Peru, it shows us a more advanced stage. Men are using copper, silver or gold as currency; they are making contracts involving the future; they are buying and selling, borrowing and lending on a considerable scale; they are keeping rude accounts. Very slowly these practices diffuse from the centers of cultural achievement and quite as slowly the shifting cultural centers score advances. The epochal invention of coinage was probably made in western Asia Minor about 700 B.C., and was carried by Phoenician traders round the Mediterranean world.

Having passed through these earlier stages, the uses of money entered a phase of rapid development in Phoenicia, Carthage, and Greece and upon a still more notable expansion in Rome. Money changing, letters of exchange, simple banking, production of staple goods on a large scale for a wide market, speculation, business enterprises not only in trading, but also in mining and manufacturing, became common. Large fortunes were built up by private people and invested for profit. Despite the prevalence of slavery, many men worked for wages. It was, indeed, a businesslike society that flourished under the *pax Romana*.

But with the disintegration of Roman culture, pecuniary organization declined as decisively as any other phase of civilization. In economic, as in political life, a sharp contrast appeared between East and West. Over those parts of the Empire which were later to assume leadership in culture, central authority dissolved into a shifting multitude of local controls; petty warfare became a chronic misery; the admirable Roman roads fell into disrepair; commerce shrank to a dribble of luxuries for the powerful and a local exchange of indispensables like iron, salt and tar for the commonality; manufacturing for a wide market almost disappeared; coinage became scanty, irregular, and incredibly confused; the use of money was superseded in large part by the payment of feudal and manorial dues in personal services and commodities. The vast majority of the population lived in village communities, each of which produced most of the things its low standard of living required, and consumed most of its own products. Even the kings and other magnates spent much of their time moving about from one manor to another, eating up the local produce on the spot. All the more elaborate achievements of pecuniary organization had to be won over again.

Quite different was the situation in the area dominated by Constantinople. There the money economy suffered no such eclipse as in western and northern

Europe. Gold coinage, a banking system, manufacturing on a considerable scale, a commerce which tapped the Orient on one side and the western Mediterranean on the other side were maintained and in some respects elaborated. It was due largely to this continuation that the reëstablishment of money economy in western and northern Europe was a far more rapid process than its original growth, requiring scarcely a thousand years. What the Byzantines had conserved they, and the Saracens, passed on. After the sack of Constantinople by crusaders and Venetians in 1204, and more decisively after the capture of Constantinople by the Ottoman Turks in 1453, commercial leadership passed to the Italian cities. Many merchants emigrated to Venice, Amalfi, Genoa, and other towns, carrying with them their capital, as well as their skill in commerce and finance. A vigorous development of money economy began in the lands bordering the western Mediterranean and spread by degrees to northern countries.

The stages of this revival are imperfectly known, though they have been lived through so recently. Economic history is a young specialty, and the men devoted to it have not been fully alert to the importance of pecuniary institutions. Nor do the surviving materials on which their work is based pay much attention to the homely details of the life of the peasant, the craftsman and the merchant, except as these humble people had relations with their lords. Yet enough is known, particularly regarding England, to reveal the broad features of the story.

In economic development, the leaders were successively the Italian cities, Spain, Southern Germany, France and the Low Countries. England lagged behind until the eighteenth century, when London finally displaced Amsterdam as the greatest financial center, and the English began to live by making and spending money incomes as generally as the Dutch. In a history of money economy, English developments would form but one strand in a complicated fabric — a strand which does not fairly represent the whole. But the very slowness of English development serves the present purpose. For that purpose is not to sketch the history of pecuniary organization as a whole, but to make clear the complex character of the institutions which we are wont to take as a simple matter of course. . . .

Even in Anglo-Saxon times, the English kings were finding that the use of money was a more efficient method of administration than levying upon commodities and requiring feudal services. They early began to commute the duties in kind upon exports and imports — for example, so many tuns of wine or bales of wool in a cargo — into money payments, and to collect in money as much of the internal taxes, fines and dues as their officers could. The Danegeld, for instance, was levied and paid in silver. The Anglo-Saxon kings struck a currency of silver pennies based on the Carolingian pound. (It was not until 1343 that gold coins were issued in England and the gold standard was not established

until nearly four hundred years more had passed.) Besides taxing, the English kings borrowed on a considerable scale from religious establishments, from the Jews until their expulsion in 1290, and later from Italian merchants and bankers who did business in London.

Another great step in pecuniary organization was taken when the kings began to replace the unreliable feudal levies with paid professional soldiers. This change involved commuting the tenant's obligation to render military service in person with his retainers at his back into money payments by the tenant-in-chief and his knights. And a similar change was effected gradually in the management of the crown lands. On royal manors the villeins were allowed to commute their dues in labor and commodities into sums of money which constituted a revenue the king could use where convenient.

Meanwhile the reorganization of life among the common people on the basis of buying and selling was proceeding spontaneously in the towns. Here the differentiation of crafts could develop only so fast as the exchanging of products increased. As they devoted more and more time to their specialities, the master craftsmen had to buy their raw materials and most of the food for their families, apprentices and in-working journeymen. The towns were also the centers of what foreign or inter-regional trade was carried on, and the volume of such trade grew unsteadily larger with each generation. Thus the towns came to be "islands of money economy" in a sea of customary duties and rights — *foci* from which organization on a monetary basis diffused itself gradually over the countryside.

In the rural districts the epochal change was the extension of commutation into money rents of the week-work, boon-work and commodity payments required of the masses of villeins and cotters. From the manors held by the crown and the great religious houses, this change spread slowly and unevenly to manors held by lesser magnates. The process was piecemeal, marked by pauses and spurts, but cumulative. It was accompanied by the rise of estate management for revenue, instead of for subsistence. More slowly still the masses of the peasantry moved, or were shoved, into a new manner of life. Holdings of scattered strips in the common fields were amalgamated into blocks. The waste lands, the commons and the common fields themselves were enclosed. On many manors, the old three-field system of cultivation was abandoned in favor of the more lucrative grazing of sheep for the export commodity, wool, and later for methods involving more use of fertilizers and the rotation of crops. Specialization in animal husbandry and crops increased. Those of the old population who could not master the new arts of making and living on money, sank to the position of wage-workers on the land, or drifted away to the towns. The more adaptable men turned into businesslike farmers, paying money rents, using hired laborers and selling most of their produce. So slow and so uneven was the process of transformation that over much of England

these changes were still going on in the eighteenth and early nineteenth centuries. Perhaps four-fifths of English acreage was enclosed after 1760.

Even by the sixteenth century, however, the uses of money had developed far enough in England to make the inflow of Mexican and Peruvian silver from Spain produce grave social results. The "price revolution" of the sixteenth and seventeenth centuries reduced the value of the money payments into which many dues had been commuted and so forced a reorganization of estate management upon many reluctant landlords. On the other hand, it gave increased opportunities for profit by dealings between the districts where silver was abundant and the districts where it was scanty. Thus the new supplies of the precious metals (for presently gold began to come in considerable quantities from the Brazilian placers) gave a powerful impetus to commercial enterprise. England, which had been mainly a self-contained agricultural state, entered upon a career of colonizing, developed a mercantile marine, and in the eighteenth century became the foremost commercial power.

As commerce increased, financial organization became more elaborate. Lending at interest, which had been permitted only under conditions carefully stipulated by the Church, became a legalized practice as the benefits of investment of capital grew clearer. Presently banking arose in England. During the seventeenth century the London goldsmiths, whose business with precious metals made strong boxes necessary, were resorted to more and more frequently by merchants and other wealthy men for the safe-keeping of moneys. The goldsmiths who accepted deposits found that they were never required to pay back more than a fraction of the total in any day or week. They could make profits by lending part of the sums in their hands. To increase the funds which they could lend, they presently began to pay interest upon deposits. Soon they discovered that it was as easy to lend their promises to pay as it was to lend coin. Goldsmith's notes became familiar currency among well-to-do people, and London had a flourishing set of banks of deposit, lending, and issue some decades before the Bank of England was established in 1694.

With the increased scale and growing intricacy of business dealings, there was need for more accurate bookkeeping. On large estates the stewards had perforce kept simple accounts of the work done and the commodities received from the numerous tenantry. Doubtless merchants and many craftsmen had made more elaborate records of their transactions. But the mystery of double-entry bookkeeping — an Italian invention first published in 1494 — was both a marked technical advance in itself and an incitement to the further improvements which led to modern accounting. That mystery the mercantile classes of England began to acquire in the sixteenth century.

Commerce came home to the mass of English people while it was extending to the ends of the earth. The periodical markets and fairs, which made such a picturesque feature of medieval life, became inadequate to meet the needs as

communities became less self-sufficient. Weekly markets became common, then daily markets, then retail shops. By 1700 not only London but also several other towns had a variety of shops doing business with a wide clientele.

Lagging not very far behind the development of new economic practices came their recognition and enforcement at law. Through their dealings with foreign traders abroad and at home, English merchants early became acquainted with the law merchant — a highly developed commercial code which had grown up during the Middle Ages in the great continental fairs. In his *Legal foundations of capitalism*, Professor John R. Commons has shown how the English judges gradually reshaped the old feudal conceptions of suzerainty to fit the nascent conception of private property in land; how side by side with the law of prerogative they built up the common law to regulate the relations among individuals; how they legitimized property in promises to pay, in good will, in going concerns. The great development of mercantile law by Chief Justice Mansfield came in the middle of the eighteenth century.

Trade, and to a less extent mining and colonial schemes, had been the favorite field of what business enterprise appeared in the sixteenth and seventeenth centuries. Manufacturing, banking and insurance were added to this list in the seventeenth and eighteenth centuries. Capitalistic organization of various industries, as opposed to the earlier craft organization, developed with the widening of markets, and the consequent opportunity for mass production and standardization of products. Thus it antedated the "Great Inventions" by two or three generations. But the introduction of power machinery and the building of factories quickened and broadened the process. Adam Smith could take it for granted that a capitalist employer was the typical figure in industry, just as he took it for granted that a capitalist farmer paying money rent was the typical figure in agriculture. The proportion of men working on their own account shrank in all fields of enterprise, as did the number who consumed their own products, while the proportion of men working for wages increased.

As the scale of business undertakings grew, the one-man enterprise, and even the partnership, became inadequate. Large and hazardous ventures in foreign trade were carried on in the fifteenth and sixteenth centuries commonly by "regulated companies" enjoying certain privileges conferred by government, but composed of merchants each of whom traded on his own account. In the latter half of the sixteenth century, the joint-stock form of organization began its conquering career in England with the Russia Company and the Adventurers to Africa. The Bank of England (preceded by several continental institutions) adapted this form to banking and it spread slowly to other fields. But in 1776 Adam Smith argued that, in most lines of business, the joint-stock company was necessarily less efficient than the simpler organization in which one man or a few partners were giving strict attention to their personal interests. The enlarged capital needs of factories, however, the coming of railroads and

the rapid growth in the volume of business, so altered the situation that within a century after the *Wealth of nations* was published the joint-stock company in some of its proliferating variants became the dominating form of business organization outside of farming, retail trade, and the professions. The spread of this form was much more rapid after 1862, when Parliament accepted the principle of limited liability of stockholders.

An investment market evolved with the growth of capital. Stockbrokers had long been known in London before the great outburst of speculation in the shares of the South Sea Company in 1720. The development of their business owed much to the rise of high-grade investments, particularly the manifold forms of government obligations. In 1773 the London brokers organized the Stock Exchange, and so had the financial machinery ready to handle the great increase of investment and speculative transactions in securities which came with the Napoleonic Wars, the spreading of joint-stock companies and the building of railways. These facilities gave a stronger impetus and a wider scope to two processes already familiar to Englishmen. A new leisure class of people who had inherited "money" developed in each generation from the families of successful business men, and the old leisure class of landowners could strengthen their position by participating silently in business ventures or by intermarrying with the new rich.

When European settlers came to America they brought with them the monetary usages of their various home countries in the seventeenth century. But under the rough conditions of frontier life the colonists suffered a temporary recession to simpler forms of organization. They were short of coin and had to use commodity currencies at times — tobacco, wampum, beaver skins. They had to live more on their own, somewhat after the fashion of medieval villagers; the differentiation of occupations was simpler; financial machinery was scarcely needed and scarcely existed; the chief business of life was to get enough food and clothing, to build houses and clear land, to keep off the Indians.

This recession was relatively short-lived on the Atlantic seaboard, but it remained characteristic of life on the westward-moving frontier as long as the frontier lasted. Always the fur traders, the trappers and hunters, the early settlers, had to get or make much of what they consumed, though they could draw upon trading posts for their arms, tools and firewater, and barter or sell such of their products as were easily transportable. Even the more thickly settled Eastern colonies, despite their rapid progress in economic matters, continued to lag behind England in the drastic thoroughness with which they practiced monetary habits, and the refinement with which they developed financial organization. It was not until late in the nineteenth century that the United States drew fairly abreast of the mother country in this respect. Even today our farming is not quite so businesslike as the English, except for our large-scale ventures in coöperative marketing of agricultural products. Our

investors have not evolved or borrowed all of the British institutions to look after their interests; our foreign financial connections are less perfect, and our technique in foreign trade is inferior. But on the other hand, retail trade on the whole is more highly organized than in England, and our industrial corporations probably excel the English not only in the scale of their operations but also in systematic organization.

This sketch is all too brief and too simple to give an adequate impression of the way in which the developing uses of money have altered the life of mankind, and how they have fitted into the growth of other institutions, checking some and stimulating others. Still less does it show how the development of monetary practices in England was related to the larger growth in Europe. But with all its omissions, the sketch suggests how "fearfully and wonderfully made" is the complex of pecuniary practices which seems to us so natural. The commutation of feudal dues into money payments, the corresponding commutation of labor and commodity rents into money, the development of crafts with exchange of products, the rise of towns as trading centers, the invention of banking, the growth of retail shops, the excogitation of business law, the organization of joint-stock companies and their rise to dominance in most fields of business enterprise, the adoption of accounting as the technique for controlling economic ventures, the evolution of special organizations to provide for investment and speculation, the differentiation of the whole population into those who live on wages, on profits, on income from investments, or on an income which combines these types, the shifting of power from men of prowess or high birth to men of great wealth or marked business ability, the discomforting of those whose talents are not such as to command considerable incomes in a money-making world — all these developments have combined to produce the current form of business economy. Nor can we assume that this current stage is the final pattern. On the contrary, it is probable that pecuniary institutions are now changing as rapidly as at any period of their long history.[1]

The contemporary extent of the money economy

Even so concise an account of the genesis of the modern money economy must throw into relief, by the emphasis of historical comparison, the important conditioning influence of making and spending money incomes upon our contemporary modes of making a living and living together.[2] It also gives weight to our earlier statement that these

[1] Quoted by permission from Wesley C. Mitchell, *Business cycles: the problem and its setting*, National Bureau of Economic Research, 1927, pages 66–74.

[2] The Bureau of the Census lists as "gainfully employed" only persons who receive money in return for their work. The Census of 1920 showed the population of the

influences are more powerful today than ever before. There are, at present, only two general classes of persons, who, in a qualified sense, are exceptions to the modern rule that people make their living by making and spending money incomes. The first of these classes is farmers. In many agricultural sections the farmers supply certain of their wants — such as food and fuel — directly, instead of by the roundabout method of selling things to other people and buying what they want with the proceeds. Yet this is becoming less common as the old frontier conditions

DISTRIBUTION OF GAINFULLY EMPLOYED IN THE UNITED STATES, BY SEX AND AGE, 1920

Age periods	Per cent of total gainfully employed in each age class	
	Males	Females
All ages	78.2	21.1
10–13 years	6.0	2.8
14–15 "	23.3	11.6
16–17 "	58.0	31.6
18–19 "	78.3	42.3
20–24 "	91.0	38.1
25–44 "	97.2	22.4
45–64 "	93.8	17.1
65– "	60.1	8.0
Age unknown	61.5	28.0

recede. Farmers who specialize, for example, in raising wheat or cotton are coming more and more to buy such articles as eggs, butter, and bacon at a store, just as city dwellers do. The second of these exceptional classes is housewives. In so far as they produce goods and render services at home, they are supplying directly the wants of their families. Yet they are not, on the whole, doing so to any such extent as did their mothers or their grandmothers. More and more of the tasks of house-

United States to be 105 million. Of these, 15 per cent were children not in school; 21 per cent were children and young persons in school; 21 per cent were housekeepers; 39 per cent were gainfully employed. The remaining 4 per cent consisted of the idle rich and poor, inmates of prisons and asylums, and persons engaged in disreputable occupations.

keeping are being performed by commercial and industrial agencies which are outside the home. Bakeries, canning factories, packing plants, and delicatessens have taken over a large part of the work of preparing food. Manufacturers of plumbing fixtures, dish washers, and vacuum cleaners, as well as commercial laundries, have removed much of the drudgery from the quest of cleanliness. Energy made in electrical power plants supplements the strength of the housekeeper. Clothing for the family is commonly made in factories instead of on spinning wheels and

DISTRIBUTION OF GAINFULLY EMPLOYED IN THE UNITED STATES, BY OCCUPATIONAL GROUPS, 1920

Occupation	Number males	Number females
All occupations	33,064,737	8,549,511
Agriculture and forestry	9,869,030	1,084,128
Extraction of minerals	1,087,359	2,864
Manufacturing	10,888,183	1,930,341
Transportation	2,850,528	213,054
Trade	3,575,187	667,792
Other public service	748,666	21,794
Professional service	1,127,391	1,016,498
Domestic and personal service	1,217,968	2,186,924
Clerical occupations	1,700,425	1,426,116

hand looms and by dexterous fingers at home. Even responsibility for feminine loveliness has been taken over very largely by cosmetics manufacturers and beauty parlors. These conditions not only relieve the housewives of much of their work at home, thus enabling them to seek employment for money; they also create needs for family incomes large enough to cover the costs of these commodities and services, and thus make it necessary for women to supplement the monetary earnings of the family. For both of these reasons the status of the housewife is changing; larger numbers of women are coming into conformity with the general rule and are making and spending money incomes.[1]

[1] In 1880 only one woman in seven was gainfully employed; in 1920 the ratio had risen to one in four. It has been estimated that the ratio in 1930 is about one in three. In 1920 about 10 per cent of married women and 60–64 per cent of unmarried women in large cities were gainfully employed.

The National Bureau of Economic Research, after taking account of these two exceptional classes and other particular cases, estimates that only about one-fourth of what is produced in the United States is used by the producer or his family, i. e., is not intended for the market. And the steady tendency is toward a situation in which each person will sell everything that he makes and buy everything that he uses. When we compare this tendency with the condition of a medieval manor on which the people produced almost all that they used and used almost all that they produced, the differences between the two modes of making a living and living together are more striking than their similarities.

Thus it is that our industrial society is organized on a money-making basis. The material welfare of each individual is basically determined, not by his personal worth or his virtues as a citizen, but by the amount of money he can command. His personal worth and virtue may help him to a command of money — but there is no essential correspondence between them. On the other hand, it appears in many instances that the absence of virtue is an aid to acquisition. In our money economy and its concomitant, political democracy, little remains of hard and fast systems of caste, and only broad legal limitations restrict the ways in which any person may secure wealth and the social importance which accompanies its possession. By this statement no implication of equality of opportunity is intended; inheritance of wealth, the prestige of a family name, the different capacities with which different persons are endowed at birth — all these give greater advantages to some than to others. Economic individualism rests on the assumption of equal opportunity to all, and benefits most those whose opportunities are greatest.

While each individual must necessarily assume, in our money economy, responsibility for his own material welfare, there are many instances in which one person can serve his own interests best by coöperating in promoting the interests of the group to which he belongs. As long, for example, as the prospects were good in the United States for a person to achieve a large money income by his own single-handed efforts, he had little inducement to aid, or to seek the aid of, his fellows. But as soon as conditions in some fields became such that most persons' opportunities to secure more for themselves depended upon the ability of the group to improve its position, coöperation tended to take the place of individual

effort. The modern trade union movement in this country, which began in the 1880's and 1890's is a striking demonstration of this tendency. The more recent growth of manufacturers' associations and trade associations is another. Thus the money economy, while patterned on individualistic lines, has given rise to some forms of coöperative group action, and seems likely increasingly to promote individual advantage through group endeavor.

The business enterprise

The typical form of organization through which money incomes are made is the business enterprise. This is the name applied to any industrial or commercial unit whose purpose is to secure pecuniary profits for its owner. The essential profit motive distinguishes business enterprises from such other organizations as charitable associations and social clubs, as well as from the self-contained and self-sufficient medieval manor and from the state which has been idealized by communists in which the rule of service and distribution would be "from each according to his abilities, to each according to his needs." The guiding principle of a business enterprise is that money income must be greater than money outlay. The reason for this necessity is obvious: under the rules of the modern order it is imposed by self-preservation. An enterprise whose expenditures exceeded its income would sooner or later go out of existence. Hence the policies of business enterprises are governed by the quest for profits.

Taken individually, each business enterprise is a center through which money is distributed. It buys various materials and equipment, employs workers of various degrees of skill and abilities ranging from common laborers to engineers, managers, lawyers, and advertising experts, pays interest to its creditors and dividends to its owners or stockholders, and disburses money to insurance companies, railroads and countless other suppliers of services and facilities. The money thus expended is derived, of course, from selling whatever it is that the enterprise has to sell. Taken collectively, business enterprises constitute a complicated, but none the less coördinated and interdependent system of functions and interests. Each enterprise must buy materials, equipment, and services from other enterprises, and each of them, except retail merchants, must sell what it

makes to other enterprises. A failure on the part of one of them to supply what the others need or to buy what the others have to sell may greatly embarrass the entire system of enterprises. Superficially considered, the nourishment given by business enterprises to each other is suggestive of the lines of Dean Swift:

> So, Nat'ralists observe, a Flea
> Hath smaller Fleas that on him prey;
> And these have smaller Fleas to bite 'em;
> And so proceed *ad infinitum.*

Further consideration, however, will dispel any suggestion of analogy. Business enterprises, unlike the fleas, are mutually contributory.

Pecuniary power in the money economy

In the modern world a command over money endows its possessor with a power over more than the mere purchase of goods and services. Because of the interdependence of the interests and activities of various persons and groups, the owner of great wealth occupies a social position of tremendous strategic importance. He may, for example, resort to monopolistic practices in his quest of further gains for himself and may, in so doing, seriously impede the activities and aspirations of others. Or he may buy special privileges and immunities for himself which are not available to the person of ordinary means. This is especially manifest in politics. Our recent history is filled with instances in which trusted public officials have failed in their duty or engaged in dishonest practices under the lure of large sums of money. Political corruption is by no means a modern phenomenon. Yet its forms and its implications in a democratic state and under the conditions of a money economy are different from those arising in a feudal or absolutistic order. Even the campaign slush fund is not peculiar to the twentieth century. Jacob Fugger II, the greatest banker of the sixteenth century, bought the Holy Roman Emperorship for Charles V of Spain and received valuable concessions in return. Yet the entire wealth of the Fugger family — the richest of its time — was less than the amount spent by either major American political party in a presidential campaign.

There are, on the other hand, innumerable instances in which private individuals have employed the power of their wealth in promoting the

highest type of social interests and adding to the comfort and happiness of people. The hundreds of Carnegie libraries scattered about the United States are eloquent memorials to constructive public-spiritedness. So are the host of privately established scholarships, art museums, parks, and the endowments and foundations devoted to such ends as health promotion, education, and international peace. These instances supply adequate proof that a command over money may be used for purposes which are the opposite of predatory. It should be clear, however, that there is no assurance of wealth being employed in this way. The situation is one of extreme uncertainty. In our individualistic system, choice rests with the person who owns the wealth.

The interdependence of people and of business concerns in the modern money economy, with the concomitant power which is wielded by some individuals and groups, gives rise to a host of complicated problems. Although each person is protected, in principle, by constitutional guarantees of liberty and property, the exigencies of the money economy create many circumstances in which practical, and very real, limitations are imposed on the liberty or property rights of certain members of the community. A person who, as a buyer of goods or services, is compelled to buy from a monopoly or in a market in which all the sellers have conspired for their mutual advantage, has little freedom and little power to use his property for his own unrestricted advantage. In like manner, a person who has goods or services to sell may find his freedom impaired and his property damaged merely because the buyers are possessed of greater pecuniary or strategic resources than his own. Such circumstances may affect people in any of their capacities as wage-earners, landowners, employers, lenders, consumers, etc. And to avoid the consequences of such forms of coercion, a variety of defensive schemes have been devised whereby coercion can be fought with coercion. Important examples of such schemes are the employers' association and the trade union — each of which is engaged largely in the exclusive protection of its respective members from coercion by the other. Other examples are consumers' coöperative leagues and credit associations.

The most important agency of regulation and control, however, is government. A large part of its function consists, in our money economy, in preventing or ameliorating the evil effects of business enterprise and

its associated conditions. Yet government promotes as well as restricts business, as, for example, through its enforcement of contracts between individuals or business concerns, its enactment of protective tariff laws, and its propagation of trade information. In these several capacities, government has assumed an instrumental relationship to life in our money economy. This may be reflected in a passive acquiescence to "business as usual." Or it may consist in an avowed consciousness that business enterprises will best serve the interests of society when and because it pays them to do so, and that government is an important means of making it pay. It is, of course, probable that some laws which are passed are not desirable even in terms of the criteria on which they rest, and that many measures which are desirable, for one reason or another, have not been enacted into law. Be this as it may, and without regard to whether the reader is a believer in political intervention or in a "business administration," the important fact is that government, in its various jurisdictions and phases, is intimately concerned with problems created by the system of business enterprise operating in our money economy. It is influenced by the power of business enterprise, and it also influences that power.

The pecuniary motives which dominate business enterprise have striking counterparts in other contemporary phases of making a living and living together. Many of the social values by which our ancestors set great store have been displaced by purely pecuniary values. Thus the old established criteria of goodness, beauty, and appropriateness have given way, to a large extent, to preferences for the expensive, the "rich-looking" and the ostentatious. Social prominence, like personal power, frequently is measured more accurately by the kind of automobile a person rides in than by his usefulness to the community. This is essentially what is meant by critics and commentators who refer to "the modern materialism." Veblen has tellingly labeled much of this display "conspicuous waste."

This recasting of values and incentives certainly is facilitated — perhaps even caused — by the impersonal character of money-making and money-spending in our money economy. Under frontier conditions, or in small marketing areas, the person who accumulates a fortune larger than those of his neighbors is subject to suspicion and is likely to be

written down as a poor citizen. The assumption is that he has made his wealth at the expense of the other members of the community. Public spiritedness, loyalty, and generosity are the traits which are most respected. But when, as at present, markets are international in scope and transactions occur chiefly between people who are not acquainted with each other, the taboos and preferences mentioned above are rendered ineffectual. And, indeed, such contacts as people have with each other under conditions of industrial urbanism tend to promote the less fundamental incentives. In a frontier community people know the abilities, tastes, and opinions of each other. As larger and larger numbers of persons come to live in towns and cities, and as improved means of transportation enable people to travel more widely, they come to associate less with those who know them well and more with complete or comparative strangers. Under these circumstances criteria of personal worth come to be more superficial. And an accepted mode of making a favorable impression on these strangers is by giving the appearance of prosperity and of having expensive habits and tastes.

Some benefits of the money economy

In tracing the consequences of the money economy to our contemporary modes of making a living and living together, we have, to this point, given chief attention to what may seem the less attractive phases of the matter. To stop here would be to give only a one-sided view of the scene. In addition to the real and hypothetical evils and injuries to individuals and society which are associated with the money economy, there must be credited to it many actual and potential benefits. Of these, the first and most obvious is the greatly enhanced material welfare which has accompanied its development. A second is its superiority in convenience over any other system of organization which has yet been devised. It is patent that our lives — in fact our very chances of living at all — would be greatly narrowed if each of us had to depend exclusively on his own efforts to secure a livelihood: a mode of exchanging goods and services is an essential characteristic of every society. And it seems equally clear that no method of barter could be as flexible, or yield itself as completely to mutually beneficial coöperation, as does the system of making and spending money incomes.

The third, and in some respects the most subtle, advantage which accrues from the money economy is the freedom with which it endows people, both in making a living and in living together. The conditions of serfdom or of slavery, which are essentially associated with states of society in which money is little used, become unprofitable and disappear in a highly developed money economy. But the freedom afforded by this system is farther reaching than the mere absence of servile status. The important gain consists in a great widening of each person's range of choice — which is the only meaning that the relative term "freedom" has. The fact that with money one is able to buy the material things that he wants enables each person to specialize in his own occupation without being forced, by the pressure of his needs, to become a jack-of-all-trades. That is essentially why the present era can be an "age of specialization." The ability to specialize, and the need to specialize, make it easier for each person to pursue the occupation to which he is best adapted or which appeals to him most. Even under the prevailing system there are, of course, limits to each individual's choice of an occupation. It is as futile for a poor person to choose immediately to become a great banker or a merchant prince as for a cripple to aspire to the heavyweight championship; and aptitude for a given occupation is more important than choice as a determiner of success. Yet the wide range of aptitudes and tastes that are called for in the modern money economy, as well as the relatively greater freedom of choice, makes it probable that a relatively larger number of persons are adapted to the work which they do. From the standpoint of the entire social group there is greater assurance that special skills and abilities may be used to the greatest advantage.

In spending money, even more than in making money, our present system is especially conducive to freedom. The money economy offers inducements to producers to place wide varieties of goods and services on the market. And, to borrow a phrase of Professor Veblen's, invention becomes the mother — rather than the offspring — of necessity. The range of material things which people need and want grows as rapidly as the variety in the market increases. The result is that people can and do spend their money today for thousands of things which were unknown a generation or two ago. And in spending his money in the

way that he does, each person is selecting among a host of other things which he does not buy. Thus he exercises his freedom by choosing some things and declining others.

A little reflection on this matter may lead to the conclusion that the freedom afforded by the money economy is to a large extent potential rather than real. Simply because people have a wide range of opportunity to choose wisely and for themselves, it does not necessarily follow that they *will* do so. If the occupations most desired by people are made such by traditional standards or the snobbishness of the group, it is patent that individuals are having their choices made for them by their neighbors. In like manner a person who pursues ostentatious modes in spending his money merely because they are the modes sanctioned by the circle in which he moves is displaying little independence of choice and consequently little freedom. It is very doubtful whether people today are realizing any considerable part of the freedom which is made possible to them by the money economy.

We have gone at some length into the conditions of a money economy because they are the basic conditions under which the people of the contemporary western world make a living and live together. The study which follows will be devoted to the specific modes in which people make a living and live together and also to the problems which are attendant upon those modes. The money economy furnishes the setting for the activities of people in the contemporary state of civilization.

II. THE CORPORATION TODAY: ITS ADVANTAGES AS A FORM OF BUSINESS ORGANIZATION

By John F. Fennelly
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The corporation has been well described as above all else a capital-raising device. Once this fact is grasped, the peculiar importance of this institution in the modern industrial structure becomes much clearer. Its prototype, the joint-stock company, was called into existence in the late sixteenth and early seventeenth centuries for just this purpose. At that time trade with the Far East and with the newly discovered lands in the West offered marvelous opportunities for profit, but these profits fell chiefly to those who learned how to organize the business on a relatively large scale. Since very few individuals possessed the necessary resources to enter this trade independently, the joint-stock company was introduced. By splitting ownership into a great many shares of capital stock, the small resources of countless individuals were gathered into the hands of the active promoters and managers. Division of ownership was achieved without sacrifice of the advantages of concentrated control and management.

Although the joint-stock device grew steadily in popularity during the seventeenth and eighteenth centuries, the full possibilities of this institution for business enterprise appeared only as an outgrowth of the industrial revolution. Even as late as 1776 Adam Smith believed that:

> The only trades which it seems possible for a joint-stock company to carry on successfully without an exclusive privilege are those of which all the operations are capable of being reduced to what is called routine. . . . Of this kind is, first, the banking trade; secondly, the trade of insurance in fire and from sea risks and capture in time of war; thirdly, the trade of making and maintaining a navigable cut or canal; and fourthly, the similar trade of bringing water for the supply of a great city.

In other words, Smith was convinced that the corporate form was likely to prove less efficient in most lines of business than the individual

proprietorship or the partnership. The only exceptions to this rule were, in his opinion, to be found in the monopolies such as the great trading companies of the seventeenth century and in those competitive enterprises which required large accumulations of capital and which could be conducted on the basis of a standardized routine.

The growth of the factory system and the introduction of machine technique in manufacturing did not at first appear to nullify the dictum set forth by Smith, but seemed merely to widen the field in which his principles would apply. Until the latter half of the nineteenth century the adoption of the corporate form by manufacturing industries proceeded very slowly and was to be found almost exclusively in those businesses, such as the iron, steel, and textile industries, which required particularly large aggregations of capital and which had become more or less standardized. Most manufacturing enterprises were still conducted on a relatively small scale and did not require a great deal of capital. As a result, the corporation in the United States prior to the Civil War was limited mainly to the fields of banking, insurance, municipal public utilities and the development of transportation facilities. Of these transportation offered the most fertile field for the application of the corporate form. The construction of highways and canals early in the century and, later, the building of railways and steamship lines were financed largely by means of the joint-stock device. In fact, even as late as the opening of the present century, dealings in railway securities comprised the great bulk of the total stock transactions on the New York Stock Exchange.

After the close of the Civil War, however, the spread of the corporate form proceeded with startling rapidity. In the first place, large-scale enterprise was no longer limited to a relatively small field. In all branches of manufacturing, the growth in size of individual establishments, the increased use of labor-saving machinery, and the trend toward integration emphasized the importance of capital control. From manufacturing, the trend toward large-scale enterprise spread first into the wholesale and then into the retail distributive fields. As a result the corporation became the characteristic type of organization for Big Business everywhere in the United States and Great Britain. In the second place, the growing popularity of the corporate form made clear other

important advantages which it possesses as a type of business organization besides easy access to capital. As a consequence, incorporation was soon resorted to in many fields of enterprise where capital accumulation was of relatively minor significance. Today, although the corporation cannot as yet be termed the characteristic type of small-scale business in the United States, the movement in this direction still continues.

Besides access to capital the more important of the advantages to be found in the corporate form are as follows:

Limited liability

The phrase "limited liability," as applied to corporations, means that an owner of stock in a corporation is not personally responsible or financially liable for the fulfillment of contracts or other obligations of the enterprise in which he owns stock. The liability of a corporation itself is unlimited; it is required by law to meet its obligations to the full extent of its resources. A stockholder may, of course, lose the entire amount of money which he has invested in the stock of a corporation. Yet in the event that a suit at law is brought against a corporation or it becomes bankrupt, its stockholders — if vested with limited liability — cannot be assessed to meet any deficit. In a few special types of business enterprise — of which banks and insurance companies are the most important — the limitations placed by law on the liability of stockholders do not completely absolve them of responsibility for the corporation's obligations. The Federal banking laws, for example, specify that stockholders in national banks shall have "double liability," which means that in the event that a national bank becomes bankrupt each of its stockholders (whose stock may have become totally valueless) may be assessed his share of the deficit in an amount not greater than the original or par value of the shares which he owns. Our various state laws concerning state banks, trust companies, and insurance companies provide either double or triple liability of stockholders. Even in these instances, however, the responsibility of the owners of the business is clearly defined and limited by law. Thus the legal liability of stockholders in a corporation is quite different from that of members of a partnership. The latter are unlimitedly liable for all obligations of the business that

are contracted by any of the partners or that accrue to the business from its operation.

With few exceptions the corporation now universally embodies the principle of limited liability. This privilege has been of fundamental importance for the growth of large-scale enterprise because no intelligent person will buy stock in a large corporation if he is held individually liable for all debts incurred by the business. Persons are willing to assume unlimited liability only where the owners are few in number, where they are well known to one another, and where the amounts involved are relatively small. It is only under such conditions that we see today the survival of those business types, such as the individual proprietorship and the partnership, upon the owners of which the law places unlimited liability.

The growth of large-scale business in England was undoubtedly retarded greatly during the early years of the industrial revolution by the failure of the British Parliament to grant the privilege of limited liability to joint-stock companies. Prior to 1856 this privilege was withheld from all save corporations chartered by special Act of Parliament. In that year, however, the privilege was extended to all joint-stock enterprises with the exception of banking and insurance companies. Thereafter the growth in the size of business undertakings proceeded with much greater rapidity. In the United States, on the other hand, the principle of limited liability was accepted from the very beginning. According to one authority "limited liability was recognized as an attribute of an incorporated company almost invariably without specific mention; indeed, it was the principal object desired through incorporation." While the principle of limited liability has proved indispensable for the growth of large-scale enterprise, it is also one of the leading incentives to incorporation on the part of small businesses and non-commercial enterprises.

Transferability and diversification

Closely associated with limited liability are the advantages of transferability and diversification. By the former is meant the ease with which ownership in corporate securities may be transferred from one person to another. As a result of the development of organized stock exchanges,

an individual may reassign his investment in a corporation almost at a moment's notice. It should be clear that the ease with which one can withdraw from a business has an important bearing on one's willingness to enter it. As contrasted with the holder of an interest in a partnership, which can usually be withdrawn only by dissolution of the firm, the investor in readily marketable corporate securities retains almost instantaneous command over capital.

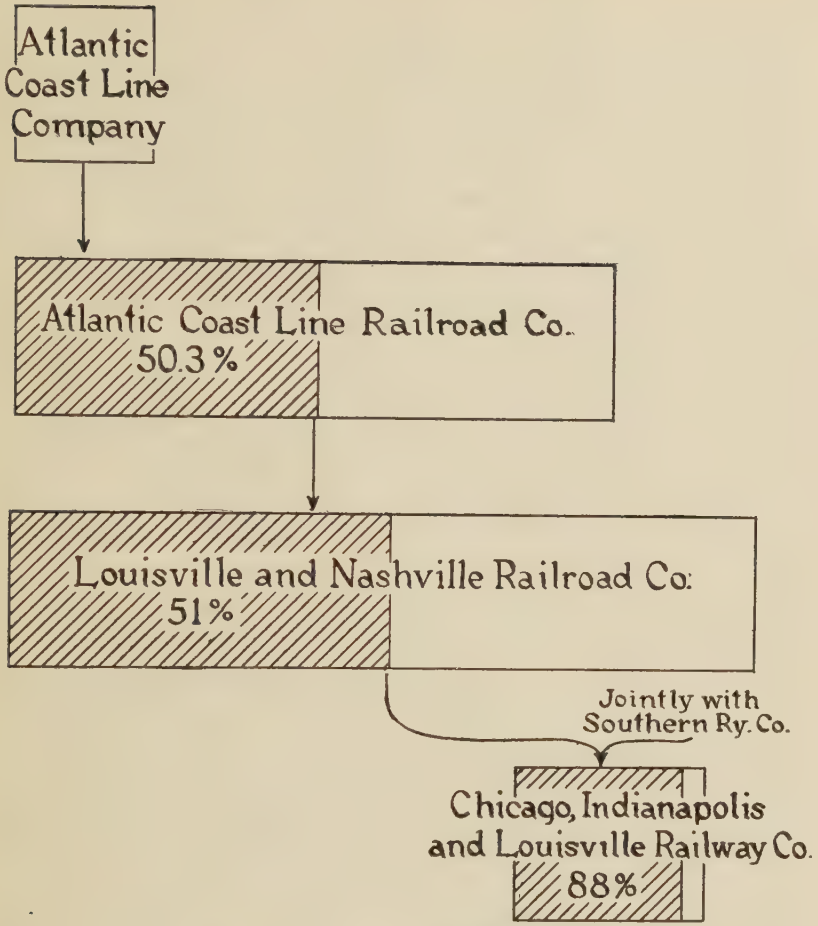
In addition, dividing ownership into a great number of small shares makes possible diffusion of business risks through diversification. Instead of "carrying all his eggs in one basket" by investing his entire capital in a single enterprise, the intelligent investor now insures himself against disaster by placing relatively small sums in a number of separate business undertakings. Since the failure of any single venture will not wipe out his entire fortune, the holder of diversified investments is in a much better position to assume greater risks on the chance of greater returns.

Perpetuity

The corporation, being a separate entity in the eyes of the law, has an existence distinct from that of any of the persons who are members of it. Except for the cases in which the charter is granted for a limited number of years, the life of a corporation can be terminated only by voluntary dissolution on the part of the shareholders or else by a loss of the charter through failure to comply with the terms under which it was granted. In the sense, therefore, that the corporation is immune from the ills of the flesh and is not dependent for its existence upon any natural person, it may be said to be endowed with legal immortality. Unlike a partnership, which is terminated by the death or withdrawal of a partner, a corporation continues in existence regardless of what may happen to any of its officers or directors. This factor tends to give a much greater sense of confidence to the investor in corporate securities, and is therefore a real advantage in the raising of capital.

Concentration of management

The use of this corporate form has tended to place the control of huge industrial enterprises more and more in the hands of a few outstanding



An Example of Holding Company Organization

business leaders. Thus, it has become possible for an individual by ownership of a relatively small amount of capital to control the destiny of investments vastly greater in amount. In the first place, absolute control over a single corporation can be exercised by the owner of a bare majority of the voting stock, which often forms a very small proportion of the total capital invested. In fact, it is often possible to control a corporation by means of a minority stock ownership. This occurs whenever most of the shares are widely scattered in small blocks amongst

many investors most of whom take no interest in the affairs of the corporation beyond the receipt of dividends.

In the second place, this tendency has been developed in recent years to a vastly greater extent by means of the holding company device. The holding company is a corporation which has the right to own the stock of other corporations. By this device the parent company can control another corporation by holding a bare majority (or even a large minority) of its shares. The second corporation in turn may hold the stock of a third corporation, and so on indefinitely. This pyramiding of stock ownership often permits the majority interest of the parent concern to control capital investment many times greater. In some cases the majority interest has represented less than five per cent of the total capital over which it exercised complete control. In view of these facts it is easy to understand the vital importance of the corporate form in the recent movement toward industrial consolidation.

Evasion of responsibility

This topic will be discussed later as one of the chief disadvantages of the corporate form from the viewpoint of social welfare. To the individual, however, the potentialities in this connection may provide a strong incentive for incorporation. By hiding behind the shield of the corporate form, individuals are often able to escape responsibility for actions for which they could be held legally responsible in their capacities as natural persons. In addition, the corporate shield is a convenient device for various forms of concealment.

The legal status of the corporation

Our earlier discussion of the corporation as a capital-raising device traced its history from the joint-stock companies of the sixteenth and seventeenth centuries. To understand its legal status, however, we must consider even more remote prototypes. In the late middle ages we find, in the city charters granted by the crown, the earliest examples of the corporate form. Later, various religious and charitable organizations were permitted to incorporate. The corporate charter created an artificial entity which could own, hold, and manage the property of such bodies in perpetuity. In all these cases, it is important to note that the

charter was conceived of as a special privilege conferred by the crown to further public or philanthropic objects.

This idea of public service was still current at the time of the incorporation of the great colonial trading companies. Although, in actual fact, these joint-stock enterprises were brought into being by the lure of easy profits, in theory they were usually regarded as agencies specially created for the purpose of carrying on missionary and colonization work among the heathen. This is seen further in their monopolistic rights and limited liability. The huge profits earned by some of these chartered companies caused many unincorporated joint-stock enterprises to be formed. There followed a wild speculation in the shares of these unchartered companies, bringing ruin to hundreds of investors. As a result, Parliament, in 1718, prohibited unincorporated companies from acting as corporate bodies or selling transferable stock.

Since this Act was never strictly enforced, it was repealed in 1825 and a General Incorporation Act was passed. Under this law the Crown was empowered to grant charters of incorporation without the necessity of a special Act of Parliament. Such charters, however, did not carry the privilege of limited liability until granted by the Act of 1856. This law marked the final step in the transition of the corporate charter from a special privilege granted for public service work to a general privilege open to all. The corporate charter became, in fact, merely a license granted in much the same manner as are automobile or marriage licenses today. In the United States, General Incorporation Acts were passed by most of the states very early in the nineteenth century. Since then a corporate charter has been granted automatically whenever a group of persons (usually a minimum of three) applies in the proper manner and according to the terms specified by the general law.

A corporation's charter

CERTIFICATE OF INCORPORATION

We, the undersigned, in order to form a corporation for the purposes hereinafter set forth, under and pursuant to the provisions of the Act of the Legislature of the State of New Jersey, entitled "An Act Concerning Corporations (Revision of 1896)," and the acts amendatory thereof and supplemental thereto, do hereby certify as follows:

Article I

The name of the corporation is:

Article II

The principal and registered office of the Company is in the . . . . . Building . . . . , New Jersey, and the name of the agent therein and in charge thereof, and upon whom process against this corporation may be served, is . . . . .

Article III

The objects for which and for each of which the corporation is formed are:[1]

It is the intention that the objects, purposes, and powers specified in the clauses contained in this third paragraph shall, except where otherwise expressed in said paragraph, be nowise limited or restricted by reference to or inference from the terms of any other clause of this or any other paragraph in this charter, but that the objects, purposes, and powers specified in each of the clauses of this paragraph shall be regarded as independent objects, purposes, and powers.

Article IV

The following provisions for the regulation of the business and the conduct of the affairs of the Company are hereby established:

The corporation may use and apply its surplus earnings or accumulated profits authorized by law to be reserved to the purchase or acquisition of property, and to the purchase or acquisition of its own capital stock from time to time, to such extent and in such manner and upon such terms as its Board of Directors shall determine; and neither the property nor the capital stock so purchased and acquired, nor any of its capital stock taken in payment or satisfaction of any debt due to the corporation, shall be regarded as profits for the purposes of declaration or payment of dividends, unless otherwise determined by a majority of the Board of Directors or a majority of the stockholders.

The corporation in its by-laws may prescribe the number necessary to constitute a quorum of the Board of Directors, which number may be less than a majority of the whole number.

The Board of Directors shall have power, without the assent or vote of the stockholders, to make, alter, rescind, or amend the by-laws of the corporation, to fix the amount to be reserved as working capital, to authorize and cause to be executed mortgages and liens upon the real and personal property of the corporation; and from time to time to sell, assign, transfer, or otherwise dis-

[1] This "object clause" varies with the nature of the business. Ordinarily it is comparatively simple, but it may be made very broad and comprehensive, as in the case of the U. S. Steel Corporation, given on page 30.

pose of any or all of the property of the corporation, but no such sale of all the property shall be made except pursuant to the vote of at least two-thirds of the Board of Directors.

The Board of Directors from time to time shall determine whether and to what extent, and at what times and places, and under what conditions and regulations, the accounts and books of the corporation, or any of them, shall be open to the inspection of the stockholders; and no stockholder shall have any right of inspecting any account or book or document of the corporation, except as conferred by statute or authorized by the Board of Directors, or by a resolution of the stockholders.

The Board of Directors shall have power to hold its meetings, to have one or more offices, and to keep the books of the corporation (except the stock and transfer books) outside of the State of New Jersey at such places as may be from time to time designated by them.

Article V

The Company shall be authorized to issue capital stock to the amount of . . . . . dollars. The number of shares of which the capital stock shall consist is . . . . . shares of the par value of . . . . . dollars each. (If preferred stock is desired, insert provisions therefor at this point.)

Article VI

The names and post-office addresses of the incorporators, and the number of shares of stock for which severally and respectively we do hereby subscribe, the aggregate of our said subscriptions being . . . . . dollars, which is the amount of capital stock with which the Company will begin business, are as follows:

Names	Post-Office Addresses	No. of Shares

Article VII

The duration of the Company shall be perpetual.

In Witness Whereof, we have hereunto set our hands and seals this . . . . . day of . . . . . 193 .

[L.S.]
[L.S.]
[L.S.]

The powers of a corporation

An individual may do anything not forbidden by law or public policy. A corporation can do only those things which its charter authorizes it to do. Of course, a charter may be phrased in such broad terms that one

would find it hard to imagine an act not so included; but the acts of the directors or officers of a corporation may be challenged by a stockholder or by the public authorities, and in any such dispute the power which it is sought to exercise must be demonstrated to exist expressly or by necessary implication.

The sweeping scope of the modern "objects clause" is illustrated in that of the United States Steel Corporation:

A charter "objects clause" [1]

III. The objects for which the corporation is formed are:

To manufacture iron, steel, manganese, coke, copper, lumber, and other material, and all or any articles consisting, or partly consisting, of iron, steel, copper, wood, or other materials, and all or any products thereof.

To acquire, own, lease, occupy, use, or develop any lands containing coal or iron, manganese, stone, or other ores, or oil, and any woodlands, or other lands for any purpose of the company.

To mine or otherwise to extract or remove coal, ores, stone, and other minerals, and timber from any lands owned, acquired, leased, or occupied by the company, or from any other lands.

To buy and sell, or otherwise to traffic in iron, steel, manganese, copper, stone, ores, coal, coke, wood, lumber, and other materials, and any of the products thereof, and any articles consisting or partly consisting thereof.

To construct bridges, buildings, machinery, ships, boats, engines, cars, and other equipment, railroads, docks, slips, elevators, waterworks, gas works, and electric works, viaducts, aqueducts, canals, and other water-ways, and other means of transporation, and to sell the same or otherwise to dispose thereof, or to maintain and operate the same except that the company shall not maintain or operate any railroad or canal in the State of New Jersey.

To apply for, obtain, register, purchase, lease, or otherwise to acquire, and to hold, use, own, operate, and introduce, and to sell, assign, or otherwise to dispose of, any trade-marks, trade-names, patents, inventions, improvements, and processes used in connection with or secured under letters patent of the United States, or elsewhere or otherwise, and to use, exercise, develop, grant licenses in respect of, or otherwise to turn to account any such trade-marks, patents, licenses, processes, and the like, or any such property or rights.

To engage in any other manufacturing, mining, construction, or transportation business of any kind or character whatsoever, and to that end to acquire, hold, own, and dispose of any and all property, assets, stocks, bonds, and rights of any and every kind, but not to engage in any business hereunder which shall

[1] From the charter of the United States Steel Corporation.

require the exercise of the right of eminent domain within the State of New Jersey.

To acquire by purchase, subscription, or otherwise, and to hold or to dispose of stocks, bonds, or any other obligations of any corporation formed for, or then or theretofore engaged in or pursuing, any one or more of the kinds of business, purposes, objects, or operations above indicated, or owning or holding any property of any kind herein mentioned, or of any corporation owning or holding the stocks or the obligations of any such corporation.

To hold for investment, or otherwise to use, sell, or dispose of, any stock, bonds, or other obligations of any such other corporation; to aid in any manner any corporation whose stock, bonds, or other obligations are held or in any manner guaranteed by the company, and to do any other acts or things for the preservation, protection, improvement, or enhancement of the value of any such stock, bonds, or other obligations, or to do any acts or things designed for any such purpose; and while owner of any such stock, bonds, or other obligations, to exercise all the rights, powers, and privileges of ownership thereof, and to exercise any and all voting power thereon.

The business or purpose of the company is from time to time to do any one or more of the acts and things herein set forth; and it may conduct its business in other states, and in territories, and in foreign countries, and may have one office, or more than one office, and keep the books of the company outside of the state of New Jersey, except as otherwise may be provided by law; and may hold, purchase, mortgage, and convey real and personal property, either in or out of the state of New Jersey.

Without in any particular limiting any of the objects and powers of the corporation, it is hereby expressly declared and provided that the corporation shall have power to issue bonds and other obligations in payment for property purchased or acquired by it, or for any other object in or about its business; to mortgage or pledge any stocks, bonds, or other obligations, or any property which may be acquired by it, to secure any bonds or other obligations by it issued or incurred; to guarantee any dividends, or bonds, or contracts, or other obligations; to make and perform contracts of any kind and description and in carrying on its business or for the purpose of attaining or furthering any of its objects, to do any and all other acts and things, and to exercise any and all other powers which a co-partnership or natural person could do and exercise, and which now or hereafter may be authorized by law.

The modern corporation, in the eyes of the law, is an artificial person which has the right to own and hold property, to buy and sell, to make contracts, to sue and be sued in the courts. By an extension of this legal fiction it has been declared entitled to certain of the privileges and immunities guaranteed to natural persons by the Constitution of the United

States. Thus, the corporation is treated as a person under the terms of the fifth and fourteenth amendments, which prohibit the Federal and state governments, respectively, from depriving any person of life, liberty or property, without due process of law.[1]

A corporation created by any state may engage in interstate commerce anywhere in the Union. This is a priceless privilege, and its value is enhanced by the fact that certain states have deliberately relaxed their corporation laws to attract those seeking charters. As with divorces, the states with the easiest rules do the busiest business. This privilege, however, is limited to commerce. A corporation from a sister state has no right to engage in manufacturing, mining, insurance or any occupation other than commerce except on such terms as the visited state may prescribe. A state may, indeed, absolutely exclude the corporations of other states from everything except interstate commerce. But the latter is so all-embracing and expansive a concept that state restrictions are dwindling in significance.

In so far as these special regulations restrict the activities of foreign corporations, the corporate form is a handicap rather than an asset in carrying on a nation-wide business. This situation, however, gives the corporation a real advantage in matters of jurisprudence. Because of its status as a foreigner the corporation, when sued or prosecuted in any state other than its own, may have the case transferred from the state to the Federal courts. As a result, the corporation is always able to claim the protection of the Federal laws and, at the same time is provided with an excellent means of evading and delaying litigation.

The early common law notion was that a corporation could not be guilty of a crime. As Blackstone put it: "A corporation cannot commit

[1] The scope of "due process" and "the police power" is discussed below.

The Dartmouth College case (1819) declared a corporate charter a contract which is not revocable by the state except where the corporation fails to live up to the terms under which the charter was granted. This does not prevent a state from providing in its constitution that no irrevocable charter shall be granted and that all corporate charters thereafter granted shall be subject to the law of the state as amended from time to time. The Dartmouth College case, therefore, is of little practical significance today. Yet even as late as 1901, when the Northern Securities Company was being formed, J. J. Hill testified that the incorporators had sought to find an irrevocable Minnesota charter antedating the constitutional limitations in that state, but had found this too expensive.

treason or felony, or other crimes in its corporate capacity, though its members may in their individual capacity." The rule today is universally otherwise. If a passenger agent of a railroad should issue a free pass in violation of the Interstate Commerce Act, the corporation, being responsible for the acts of its agents within the scope of their authority, is indictable. The New York Central Railroad was held criminally liable for rebates given to a sugar manufacturing firm.[1] True, a corporation cannot be jailed; but it can be fined and, under sufficient provocation, its charter can be annulled, putting it to legal death.

There is some doubt as to whether or not a corporation could be guilty of a crime involving a wicked and malicious interest. In New York, for example, it has been held that a corporation could not be guilty of homicide.[2] The Federal courts, on the other hand, have held corporations guilty of manslaughter, conspiracy, criminal libel, and "knowingly depositing" obscene matter in the mail.[3]

The financial structure of the modern corporation

The financial structure of the modern corporation, although similar in kind to that of the early joint-stock company, is vastly more complex in degree. It is impossible here to analyze thoroughly all the numerous kinds of corporate securities that are to be found in the investment markets of the modern world. All we can attempt here is to indicate some of the more important classifications and the reasons why such classifications exist.

The simplest fiscal structure is that which was used by the joint-stock companies of the seventeenth century and which is to be found in many small corporations today. In this type there is just one kind of security which represents the entire capital investment. If, for instance, the corporation issues one thousand shares of capital stock, each share of this stock represents ownership of one thousandth part of the entire enterprise, and the right to receive one thousandth part of the annual dividend.

[1] New York Central R.R. *v.* United States, 212 U.S. 481, 1909; United States *v.* Adams Express Co., 229 U.S. 381, 1913.

[2] People *v.* Rochester Railway & Light Co., 195 N.Y. 102.

[3] United States *v.* Van Schaick, 134 Fed. 592, 1904; United States *v.* MacAndrew & Forbes Co., 149 Fed. 823, 1906; United States*v.* N.Y. Herald Co., 159 Fed. 296, 1907.

Behind the evolution from this simple type to the highly complex structure of many corporations of today, two main incentives are to be found. The first has been the desire on the part of the corporate promoters to create types of securities that will suit most perfectly the temperaments of the various different groups of investors, and thereby make available larger amounts of capital. The second has been the desire to obtain the vast sums necessary for many modern industrial enterprises, and, at the same time, maintain the control of management within the hands of a small group.

The most fundamental classification of corporate securities is that into stocks and bonds. The stockholders are the legal owners of the enterprise and therefore have entire control of management, while the bondholders are merely creditors and have, under ordinary circumstances, no voice in management. Further, being only creditors, there can be no question of liability on their part.

Bonds are issued to attract capital from those investors who desire to obtain the greatest possible degree of security and, for that end, are willing to accept a relatively small return. Since the bondholder is treated as a creditor, he does not buy a share of ownership but merely lends his capital to the corporation, usually for a definite period of years. The standard, almost universal type of bond today is the mortgage bond. The basic theory of the mortgage bond is that the corporation possesses physical assets of a value in excess of the amount of the bond issue and uses these assets as collateral for borrowing further amounts. Suppose a corporation with assets valued at $1,000,000 desires to float a bond issue of $500,000. It will usually draw up and place in the hands of a trustee a blanket mortgage for the entire amount, against which bonds in denominations of $1,000 or $500 will be issued.

The chief protection of the bondholders lies in the priority of their claims against both the assets and the earnings of the corporation. Before any dividends can be paid to stockholders, interest must be paid in full to bondholders. Also, in the event of liquidation, the claims of the bondholders must be paid off in full before there can be any division of assets amongst the stockholders. As long as interest is paid regularly, the bondholders have no voice whatsoever in the management of the concern. In case of a failure to pay interest, however, the bondholders

have the right to foreclose on the mortgage and assume entire control. They may then either sell the assets to satisfy their claims or else reorganize the company under a new management. Bonds are usually classified as first, second, or third mortgage bonds in accordance with the priority of their claims against the assets and earnings of the corporation.

As stated above, the stockholders are the legal owners of the corporation and, as such, possess complete control of management. This right they lose only when the business is unable to meet the claims of its creditors and consequently is foreclosed and expropriated for the benefit of the latter. In the control of management it is an almost universal rule that each share of stock has one vote, and that a bare majority of stock, or votes, holds the power of making all corporate decisions. The chief exception to this rule is found in certain coöperative associations which achieve democracy of management by limiting each stockholder to a single vote regardless of the number of shares of stock that he may own. It is also true, as will be explained presently, that not all types of stock carry the voting privilege.

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Practically all of the many varieties of stock found in modern financial practice may be classified either as preferred or common stocks. By preferred stock is meant those types which have prior claims against the earnings and assets of the business; and by common stock, those types that possess the right to all the earnings and assets that remain after all prior claims have been met. Preferred stock may or may not carry the voting privilege, while common stock universally does so. In recent years there has grown up a practice of dividing the common stock into two classes, one of which carries the voting privilege while the other does not. In any case it is usually true today that the control of management is ultimately vested in some group of common stockholders. Often, where the preferred stockholders are given the voting privilege, there is also a provision in the by-laws of the corporation that the preferred stock may be retired by a majority vote of the common stockholders. Under such circumstances, the voting privilege of preferred stockholders is like the veto power of the King of England; a power only so long as it is not exercised.

The standard type of preferred stock today is limited to a fixed rate of dividends, and is also usually cumulative as to dividends. The latter

means that no dividends may be paid on common stock until all past dividends due on the preferred stock have been paid. Preferred stockholders, being owners, not creditors, of the business, have, however, no right to take over the control of management in the event of nonpayment of dividends. Under such circumstances, the security of the preferred stockholders lies chiefly in the fact that all arrears in dividends due them must be paid up in full out of future earnings before any dividends may be declared on the common stock.

The dividend rate on preferred stock usually varies from 6 to 8 per cent according to the credit standing of the corporation. This rate normally is slightly higher than the interest rate paid to bondholders, since the latter possess a prior claim both to earnings and to assets. Consequently, preferred stock appeals to that class of investors who desire a higher rate of return than can be obtained from bonds, and yet desire a greater degree of security than can be obtained from common stock. Preferred stock, like bonds, usually represents an actual investment of capital in the corporation. For this reason, it is usually given a fixed par value of, say, $50 or $100 per share, and the dividend rate is fixed so that the stock will sell on the market at or near this par figure.

The common stockholder, being the residual claimant, carries in theory the burden of the greatest risk on the chance of obtaining the largest share of the profits. In so far as the chance of obtaining large profits is concerned, the above statement is true, since the dividends that may be paid to common stockholders are limited only by the earnings of the business. As regards the degree of risk involved, however, the statement is only partly true. It is true where the common stock represents an actual investment of capital in the business. It is not true in those cases, seen most frequently today, where the common stock is given outright as a bonus either to the promoters for their services or else to the purchasers of the preferred stock. When no actual capital investment is made, of course no risk is involved. It has usually been the custom in the past to issue common stock with a theoretical par value, but at present there is a growing practice of issuing common stock with no par value. The latter practice is much to be preferred, since the former often tends to create a fictitious value for the stock in the eyes of the investor. Since there are rarely any assets left to be divided among common stock-

holders in the event of failure of the business, the market value of common stock depends almost entirely upon the past and prospective earning record of the corporation. There is no necessary relationship, therefore, between a theoretical par value and the actual market value. Such a relationship exists, it is true, when the common stock represents an actual capital investment, but even then it exists only at the moment of investment. As soon as the investment is made, the two values part company, and they only coincide again later by accident.

Although the creditorship status of the bondholder and the ownership status of the stockholder make for a sharp differentiation between the two in legal theory, this distinction tends to become greatly blurred in actual practice. The chief economic difference is merely one of priority of claims against earnings in kind. As we have seen, the bondholders have theoretically a complete protection against loss by holding a mortgage on assets of a value considerably greater than the total amount of the bond issue. There is a vast difference, however, between the value of the same assets when the enterprise fails to earn profits. Fixed assets, such as factories and specialized machinery are difficult to transform to other uses and may shrink in value to only a small fraction of the original cost in case of failure. The bondholders, therefore, are likely to discover that the security is far from adequate to cover their claims. Under such circumstances, the bondholders will probably suffer less if they do not exercise their right of foreclosure, but merely wait and hope for better times. Even when they do foreclose and take over the property, they are much more likely to reorganize the business under a new management than to attempt to realize on the assets. Thus, the real protection of bondholders lies not so much in the fact that they hold a mortgage on the property as it does in the fact that their claims must be fully satisfied before anything can be paid to stockholders. In this sense the difference between bonds and preferred stock is practically the same as the difference between the latter and common stock. It is largely just a matter of priority as to claims.

Social disadvantages of the corporate form

We have seen, above, the extensive benefits and powers obtained by individuals from the use of the corporate form. We must now look at

the obverse side of the shield and consider the social disadvantages that arise directly or indirectly as a result of the advantages that accrue to the members of corporations. If the corporation is called the mother of large-scale enterprises, it must also be called the mother of manifold abuses from the viewpoint of society. Of these, the following are perhaps the most important:

1. Fraudulent promotion schemes, stock-watering, etc. — Because of its very efficiency as a capital-raising device, the corporation has provided an unusually fertile field for the perpetration of fraud. Investors are induced to exchange their savings for corporate securities by the lure of profits, and the desire to "get rich quick" is one of the strongest of human motives. For this reason the gullible — and who of us is not gullible in some circumstances? — are often more easily influenced by the extravagant promises of the fraudulent promoter than by the conservative prospects of a sound enterprise. This abuse has existed ever since the joint-stock scheme was first created, and, in fact, is less pronounced an evil today than it has been in the past. Macaulay gives us this vivid picture of the activities of the fraudulent seventeenth-century stock promoter in England:

> During the interval between the Restoration and the Revolution the riches of the nation had been rapidly increasing. Thousands of busy men found every Christmas that, after the expenses of the year's housekeeping had been defrayed out of the year's income, a surplus remained; and how that surplus was to be employed was a question of some difficulty. In our time, to invest such a surplus, at something more than three per cent on the best security that has ever been known in the world, is the work of a few minutes. But in the seventeenth century, a lawyer, a physician, a retired merchant, who had saved some thousands and who wished to place them safely and profitably, was often greatly embarrassed. Three generations earlier, a man who had accumulated wealth in a profession generally purchased real property, or lent his savings on mortgage. But the number of acres in the kingdom had remained the same; and the value of these acres, though it had greatly increased, had by no means increased so fast as the quantity of capital which was seeking for employment. Many, too, wished to put their money where they could find it at an hour's notice and looked about for some species of property which could be more readily transferred than a house or a field. A capitalist might lend on bottomry or on personal security but, if he did so, he ran a great risk of losing interest and principal. There were a few joint-stock companies, among which the East India Company held the foremost place; but the demand for the stock

of such companies was far greater than the supply. Indeed, the cry for a new East India Company was chiefly raised by persons who had found difficulty in placing their savings at interest on good security. So great was that difficulty that the practice of hoarding was common. We are told that the father of Pope, the poet, who retired from business in the city about the time of the Revolution, carried to a retreat in the country a strong box containing near twenty thousand pounds, and took out from time to time what was required for household expense; and it is highly probable that this was not a solitary case. At present the quantity of coin which is hoarded by private persons is so small that it would, if brought forth, make no perceptible addition to the circulation. But in the earlier part of the reign of William the Third, all the greatest writers on currency were of opinion that a very considerable mass of gold and silver was hidden in secret drawers and behind wainscots.

The natural effect of this state of things was that a crowd of projectors, ingenious and absurd, honest and knavish, employed themselves in devising new schemes for the employment of redundant capital. It was about the year 1688 that the word stockjobber was first heard in London. In the short space of four years a crowd of companies, every one of which confidently held out to subscribers the hope of immense gains, sprang into existence — the Insurance Company, the Paper Company, the Lutestring Company, the Pearl Fishery Company, the Glass Bottle Company, the Alum Company, the Blythe Coal Company, the Swordblade Company. There was a Copper Company, which proposed to explore the mines of England, and held out a hope that they would prove not less valuable than those of Potosi. There was a Diving Company, which undertook to bring up precious effects from shipwrecked vessels, and which announced that it had laid in a stock of wonderful machines resembling complete suits of armour. In front of the helmet was a huge glass eye like that of a Cyclops; and out of the crest went a pipe through which the air was to be admitted. The whole process was exhibited on the Thames. Fine gentlemen and fine ladies were invited to the show, were hospitably regaled, and were delighted by seeing the divers in their panoply descend into the river and return laden with old iron and ship's tackle. There was a Greenland Fishing Company, which could not fail to drive the Dutch whalers and herring busses out of the Northern Ocean. There was a Tanning Company, which promised to furnish leather superior to the best that was brought from Turkey and Russia. There was a society which undertook the office of giving gentlemen a liberal education on low terms, and which assumed the sounding name of the Royal Academies Company. In a pompous advertisement it was announced that the directors of the Royal Academies Company had engaged the best masters in every branch of knowledge, and were about to issue twenty thousand tickets at twenty shillings each. There was to be a lottery — two thousand prizes were to be drawn; and the fortunate holders of the prizes were to be taught,

at the charge of the company, Latin, Greek, Hebrew, French, Spanish, comic sections, trigonometry, heraldry, japanning, fortification, bookkeeping, and the art of playing the theorbo.[1]

Today the methods of the stockjobber are almost identical with those of the seventeenth century. The chief difference lies in the character of the stocks he will offer to the public. Instead of selling shares in a lutestring or a swordblade company, the fraudulent promoter is much more likely to peddle the stock of a nonexistent gold mine or oil well. As long as human avarice exists, such practices are likely to continue and to meet with a certain measure of success. As compared with his ancestors of the seventeenth century, however, the modern investor has certain important advantages in the safe invstment of his savings. In the first place, there has grown up during the past fifty years a vast number of conservative investment banking houses which have very largely supplanted the wildcat promoter in the marketing of securities. The modern investment banker handles the distribution of securities purely as a merchandising business. His success, therefore, depends largely upon his ability to hold the confidence of the investing public. At the present time the number of sound investment opportunities is so great, and the facilities for obtaining good investment counsel are so well developed, that there is little excuse for the average investor running the risk of deliberate fraud, provided he is content with a moderate rate of return upon his capital.

It is chiefly in the field of highly speculative investments, such as mining and oil stocks, that the stockjobber still flourishes. Because of the great risk involved, conservative investment bankers are rarely willing to handle such securities until the success of the enterprise is thoroughly established. This leaves the field open to the wildcat promoter for perfectly legitimate speculative undertakings as well as for those which are fraudulent. The spectacular success achieved by the few in such undertakings always provides a strong lure for the small investor who rarely calculates how heavily the cards are stacked against him. Most of the state governments in the United States have attempted to remedy this evil by the passage of so-called "blue sky laws," which regulate the issue of corporate securities. These laws have met with

[1] Macaulay, *History of England*, vol. III, chapter 19.

little success, however, because of the extreme difficulty of drawing a line between what is a legitimate speculative enterprise and what is a case of pure fraud. Greater hope seems to lie in continued efforts to educate the investing public in the principles of sound finance.

Another evil in this connection that is difficult to eradicate is that of overcapitalization, otherwise known as stock-watering. Often it is a case of pure fraud, but by no means always. For instance, a perfectly sound business enterprise may reorganize and sell its securities to the public at a higher figure than the prospective earning power of the concern justifies. This occurs most frequently at the time of a rapidly rising stock market. This problem is particularly difficult to get at because of the fact that the value of stocks depends so largely upon earning prospects, and the materialization or non-materialization of these prospects can only be determined by the passage of time. Here again perhaps the only solution lies in education, and in the hope that investment bankers who deal in watered stocks will lose the confidence of the public and thus gradually eliminate themselves from the business.

2. Evasion of responsibility. — In our previous discussion of the advantages of the corporate form to those who incorporate, evasion of responsibility was listed as one of the most important. Similarly it must be clear that this advantage to the individual incorporators is a disadvantage from the viewpoint of society. The corporation, though a legal person, has itself no standard of morals. For this reason, corporate officials are likely to feel less moral responsibility for actions performed on behalf of the corporation than they would in their capacity as private individuals. Also the corporate form provides a splendid shield behind which individuals may escape the consequences of practices for which they would be held legally responsible if not incorporated.

This evil is particularly glaring today in the case of small-sized business corporations, and non-commercial corporations created by one or two individuals. Large industrial corporations frequently make use of the corporate shield to evade responsibility, but in such cases it is usually a perversion of a device the primary purpose of which is the raising of capital. In the case of small concerns, however, the corporate form may prove a positive disadvantage so far as the straightforward conduct of business is concerned. Such enterprises are not likely to appeal

to the investing public for capital. Furthermore, the limited liability privilege will usually injure their credit standing with commercial banks as compared with individual proprietorships and partnerships. Consequently the possibilities of evading responsibility are likely to loom large as an incentive to incorporation. These possibilities include the concealment of assets, evasion of taxes, deception of creditors, and innumerable shady practices. Although it is exceedingly difficult to fix legal responsibility for such actions, the courts in recent years have sometimes adopted the course of "piercing the veil of the corporate entity." Where deliberate intent to use the corporate form as a shield for illegitimate practices can be shown, the court may reach behind the shield and place full responsibility upon the individual or individuals concerned.

In addition to the activities of small business corporations must be listed those of the many non-commercial corporations formed in recent years by wealthy individuals to hold their private fortunes. By the use of the corporate form they are often able successfully to conceal their assets, and to escape from the full burden of income and inheritance taxes.

3. An instrument for promoting monopoly. — We have seen above that the corporation has been a wonderfully efficient mechanism for concentrating the control of vast amounts of capital in the hands of a small number of active business leaders. As a result, the corporate form has played a leading rôle in the development of the great industrial monopolies of recent times. This fact we only mention in passing, as we are not in a position dogmatically to term this condition a social evil. Such a conclusion would involve a complete analysis of the respective merits of free competition and monopoly which is clearly beyond our present scope.

4. Separation of ownership and management. — Until fifty years ago the characteristic type of business enterprise was the individual proprietorship or the partnership. Under such conditions the owners of a business were also its managers, and no separation of functions existed. Further, the dealings of the proprietor-managers with employees and customers were likely to be on an intimate, personal basis where moral responsibility to human beings could never entirely be eliminated.

Today this situation survives in small individual proprietorships, partnerships, and close corporations, but it has ceased to be characteristic of modern business enterprise. Instead, in the great industrial corporations which set the general tone of business standards, the function of management has become widely separated from that of ownership. In place of two or three owners who are also the managers of the business, ownership is likely to be divided amongst many thousands of shareholders scattered widely over the face of the globe. The chief concern of these shareholders is the receipt of dividends, and their sole contact with management is through their power to elect the board of directors. As long as earnings and dividends continue ample, the average small shareholder is not likely to be concerned at all with management policies, or even to bother about casting his vote for the election of directors.

The board of directors supervises the general policies of the enterprise and appoints the leading officials, who conduct the active management. The managers in turn deal with the employees, who may number many thousands, and with the customers, who may number millions. Obviously, therefore, the old personal relationship with employees and customers disappears almost entirely, and the sole contact becomes that of the cash nexus. The foremen who deal directly with the employees, and the salesmen who deal with the consuming public are likely never to have seen the president of the concern, and usually have no idea as to the identity of the owners.

This state of affairs often leads to serious abuses from the viewpoint of society. On the one hand, the pecuniary interests of the directors may not coincide with those of the main body of stockholders. Thus, it has frequently happened that a group of directors are able to reap large fortunes by ruining the enterprise. This may be accomplished by creating other corporations, of which they are the sole owners, and to which they let out contracts at ruinously high prices. Their losses as shareholders of the major enterprise are often insignificant compared with their gains as sole owners of the minor concern. A notorious example of such tactics occurred during the building of the Union Pacific Railway. An inside group of directors created another corporation, known as the Credit Mobilier, to which they awarded contracts for constructing the line at prices which were certain to ruin the Union Pacific while yielding

enormous profits to themselves. In recent years we have seen another notorious example of such tactics in the Continental Trading Company which figured so prominently in the oil scandals of the Harding administration. More frequently, this abuse takes a much less blatant form and may consist merely in the voting by the board of directors of outrageously high salaries to themselves or their friends as officials of the concern. In all such cases the sufferers are the main body of shareholders, who bought their stock in good faith.

On the other hand, where the interests of directors and shareholders are identical, the very identity of their interests may lead to serious social consequences. As stated previously, the one vital concern of the shareholders is the receipt of large dividends. As long as dividends are forthcoming, shareholders are not likely to concern themselves with the methods by which the profits are obtained. Such an attitude often forces directors and managers to adopt tactics of doubtful morality in order to hold their positions. For instance, the president of an industrial enterprise may be ever so humane in his attitude toward labor, but his success as an executive in the eyes of the directors and shareholders depends solely upon his ability to pay dividends. As a consequence, he is forced to treat his employees and customers merely as instruments to this end, to buy always in the cheapest market and to sell in the dearest, regardless of social consequences. A striking illustration of this situation has been seen recently in the struggle for the control of the Standard Oil Company of Indiana between John D. Rockefeller, Jr., and Colonel Robert Stewart. Mr. Rockefeller attempted to oust Colonel Stewart from the chairmanship of the board of directors because of the latter's unsavory connections with the Sinclair and Doheny oil scandals. Colonel Stewart, however, waged a strenuous but in the end unsuccessful campaign to be retained in office by the shareholders solely on the basis of the large dividends paid during his administration.

Viewed in this light, the great industrial corporation appears to be a dividend-grinding machine: a highly efficient instrument for the attainment of that end, but incapable of envisaging social or moral ends. In fact, it is a very close approximation to that bloodless and soulless ideal of the classical economists, "the economic man."

III. FROM MAIN STREET TO WALL STREET [1]

By William Z. Ripley
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I

Once upon a time, — and it wasn't so long ago, either, — down in Boothbay, Maine, there were two brothers, John and James. Their last name was Doe. John, the elder, was quiet-eyed, slow-moving, and comfortable temperamentally. James was more jumpy, nimble-witted, ambitious to get on. One stayed on the farm; the other naturally gravitated to the city. In due season John's boy prepared to enter the academy at Damariscotta. Said his father: "Son, you're getting grown up. Suppose I die — you ought to have something all your own. I'm going to give you that best Jersey heifer. But you must remember to keep her well fed and healthy so that the milk will be pure. And keep her horns cut, in case she gets pernickety. Remember also that the fence in the northeast corner of the pasture is getting shaky. She might wander out on the highroad and upset somebody in a Ford. Because she's all yours, it's up to you to see that she behaves herself."

About the same time James, in the library of his city house, thus delivered himself to his son: "Now, Junior, before you go to college I want to give you my investment in the Boothbay Harbor Electric Light Company. This concern serves our old neighbors and friends, and I want you to feel a continuing interest in, and a responsibility for, our share in this local enterprise. If properly managed it should be a benefit to this community; and it will yield you an income to be applied to your education through the next few years. But you must never forget that you are partly responsible for this undertaking. Our family had a hand in starting it. That responsibility is an inseparable part of your owner-

[1] Reprinted by permission of the author and the publisher from the *Atlantic Monthly*, January, 1926. Professor Ripley has more fully elaborated the argument presented in this article in his *Main Street and Wall Street*, Little, Brown, and Company, 1927.

ship. I read something the other day, in an opinion by Justice Brandeis of the United States Supreme Court, which bears this out: 'There is no such thing to my mind . . . as an innocent stockholder. He may be innocent in fact, but socially he cannot be held innocent. He accepts the benefits of the system. It is his business and his obligation to see that those who represent him carry out a policy which is consistent with the public welfare.' He is right in that. This accountability for wealth underlies and justifies the whole institution of private property upon which the government of our great country is founded."

Thus did two men, good and true according to their several lights, recognize the public obligation that attaches to wealth. But how different were the results! The son of John, under the old simple conditions, continued to cherish, and in the community to stand sponsor for, his Jersey heifer. But with the son of James complications speedily developed. First of all, the Central Maine Power Company, heading up in Augusta, induced a majority of the stockholders in the local corporation to exchange their holdings for shares of the larger concern. There was nothing else to do but to follow along. Then a great consolidation was announced. It was headed by the Middle West Securities Company, incorporated in Delaware, which took over the Central Maine Power Company and made it a part of an intermediate corporation, known as the New England Public Service Company, which through the Manchester Traction Light and Power Company and the National Light and Power Company (which latter itself owned the Twin State Power Company and the Vermont Hydro-Electric Company) covered all northern New England. Thus, by the close of 1923, the son of James had become a partner with 53,999 others in a joint investment of over $52,000,000 in stocks alone. The main office of the company had moved to Chicago (the annual meeting still being held in Delaware, however). The little New England corporation was now indissolubly bound up with five others in Illinois, three in Indiana, three in Kentucky, two in Oklahoma, one in Oklahoma and Texas, one in Missouri, one in Michigan, two in Nebraska, two in Virginia, one in Wisconsin, and one in Tennessee. This was the chain, constituted of many links, which made up the sole and tenuous connection between the son of James and his original electric light investment. It began to look indeed as if the days of the simple

life and of direct responsibility of ownership were by way of passing in the field of public utilities in New England.

James and his son, thus lost in the shuffle of public-utility corporations, turned to the field of private enterprise, in which, as they had been told, personal initiative still held sway, free from the deadening influence of governmental supervision. They perused the offerings of securities in the press by well-known and responsible firms. Might they not hope to acquire direct ownership in corporations which themselves managed the business? The first stumbling-block was the holding corporation. They had become used to this complicated financial device in the large concerns like the United States Steel Corporation or the General Motors Company. They sought for less stupendous undertakings. One banking house offered gold notes which invited participation in the affairs, not of the Kaufmann Department Stores, Inc., "conducting the largest department-store business in the city of Pittsburgh," but only of a holding company, the Kaufmann Department Stores Securities Corporation, a finance or intermediate company. Another offering was of Stern Brothers, New York, "one of the oldest and best-known department stores in the United States," but "to ensure continuity of management and policy the common shares will be placed in a voting trust." Perhaps they sought an interest in the biggest hardware company in the United States. They found, however, that the Associated Simmons Hardware Companies merely controlled an immense business in St. Louis, deriving their status as a legal trust from Massachusetts. The De Forest Radio Company offering was yet otherwise eviscerated of all possible voting power by another kind of voting trust.

Coca-Cola sounded refreshing. A company chartered in Georgia turns out some 25,000,000 gallons of a popular beverage, presumably at a profit. The stock is publicly listed and very widely held. But some 251,000 of its 500,000 shares were found to be lodged in the hands of a knot of insiders, incorporated as the Coca-Cola International Company. No shares of this corporation which held control were listed or available as a purchase to James or his son. Answering an advertisement of securities of the Associated Gas and Electric Company, they found that its business was really conducted at the office of the Associated Gas and Electric Securities Corporation — another finance company? From

Armour and Company of Delaware, whose common stock was all owned by Armour and Company of Illinois, down to the latest offering of a dairy-products concern, everything was tied up in this way. Hopeless indeed did it appear that any uninitiated public investor could understand, much less participate intelligently in, any of these affairs.

Nor was James wholly to blame for the loss of direct contact and responsibility between his son and his investment. For, finding himself getting on in years and being mindful of the mutability of human affairs, he might have taken out a charter as "James Doe, Ltd." — better, perhaps, than "Inc.," because carrying the suggestion, among other things, of a limited liability for inheritance taxes. His son and his wife, holding practically all of the stock in this immortal creation, no investments coming to them upon his death would cause a ripple in the Probate Courts. Or, possibly, he put his possessions in a private trust, managing it himself as trustee during his lifetime, thereby splitting up the income and still further reducing taxes. Or the management of this "living trust" might have been turned over to a professional trust company. And any one of these agencies might in turn have purchased "Collateral Trustee Shares in the New England Investment Trust, Inc., the First National Bank of Boston, Trustee," or some similar investment concern, properly enough intended through diversification to spread the risk. And, finally, there was the life-insurance policy, based entirely upon investments to be handled by these great fiduciary corporations for him as agent at the longest possible range.

II

What an amazing tangle this all makes of the theory that ownership of property and responsibility for its efficient, farsighted, and public-spirited management shall be linked the one to the other. Even the whole theory of business profits, so painstakingly evolved through years of academic ratiocination, goes by the board. All the managers — that is to say, the operating men — are working on salary, their returns, except on the side, being largely independent of the net result of company operation year by year. The motive of self-interest may even have been thrown into the reverse, occasionally, so far as long-time upbuilding in contradistinction to quick turnover in corporate affairs is concerned.

And what has become of the relation between labor and capital? What guaranty may possibly be given by the real owners to the working class that there shall not be taken from it an opportunity for future welfare and development as a result of these changes? Veritably the institution of private property, underlying our whole civilization, is threatened at the root unless we take heed. The situation is not inaptly described by the colored candidate for the ministry, confronted by the request of the examining Board of Preachers to name some character in the Bible and then to relate all that he knew about it. "Ah thinks Ah'll take Jezebel. Jezebel, she was a hussy, a-settin' up at a winder when David come down along th'u' Jerusalem. An' she hollered at him. An' he said, 'Ef I got a frien' up there, let him th'ow 'er down.' An' 'e had a frien' up there, an' 'e th'ow'd 'er down. An' David said, 'Let 'im th'ow 'er down again.' An' 'e th'ow'd 'er down again. An' David said, 'Let 'im th'ow 'er down seventy times seven.' An' 'e th'ow'd 'er down seventy times seven. An' she busted into a thousand pieces. An' they gathered up the fragments that nothin' be lost. An' de question are: Whose wife am she at de Reserrecshum?" It is a query which might well be propounded at this time to several millions of our fellow citizens, in so far as they are part owners in the $70,000,000,000 capitalization of American corporations, according to the Federal tax returns, in the year of our Lord 1923.

Thus far, however, the multiplication of these entanglements constitutes no innovation. They have been going on for a long time, insidiously undermining the principle of accountability. The individual and partnership forms of business organization disappeared in favor of the corporation even before the war. Well-nigh a thousand companies are now listed on the New York Stock Exchange alone — 163 railroads and 763 other corporations in 1924. But since the World War, and particularly in this heyday of prosperity, the facile initiating and legal minds have hit upon something better yet — and something, furthermore, which puts once and for all at rest the last vestige of power of participation of the owners of property in prudent and efficient management. These last two years, 1924–25, promise to go down in history — like the Year of the Plague, or the Year of the Big Wind — as the Years of the Split Common Stock and the Vanishing Stockholder.

Even before the World War the practice was not uncommon, outside of railroads, of setting off preferred shares as nonvoting. The amount of these issues was in those days adjusted to the tangible assets, leaving the common shares to represent the equity, which depended upon successful management to be secured by the exercise of the voting rights. The late invention now splits up these common shares. To be in the mode one has, let us call it, a "Class A participating" common stock, with a first lien on earnings after satisfaction of all prior claims of preferred stocks and bonds. This leaves a "Class B" common stock representing, according to circumstances, the cream, the scum, the froth, or the sediment of the business; for the full voting rights attach exclusively to these Class B common shares, none, or only a minority, of which are offered to the public at all. The appetite for the preferred shares may sometimes be whetted by a flavoring of the Class A common shares, but not of those which carry votes. The recent "Dodge Brothers, Inc.," is typical. A banking house buys up a private business for, it has been said, $146,000,000 or thereabouts. This sum, and more too, they recover — if the plan works out — by the sale to the public, for $160,000,000, of bonds and preferred stock at par and 1,500,000 nonvoting shares of Class A common stock. But not a single one of the 500,000 Class B voting (no par) common shares is thus sold. The promoters have virtually paid themselves a handsome profit for the assumption of the entire directorial power, having mortgaged the property to the full amount of its original cost through outstanding bonds and preferred stock, including both assets and capitalized earning power. And the amazing thing is that this final deathblow to the exercise of voting rights by the general public has brought no voice of protest. Yet the plan bears every appearance of a bald and outrageous theft of the last tittle of responsibility for management of the actual owners by those who are setting up these latest financial erections. Isn't it the prettiest case ever known of having a cake and eating it too?

Perhaps the baldest case is of an artificial-silk concern, the Industrial Rayon Corporation, with 598,000 shares of nonvoting Class A stock distributed to the public, with the reservation of the remaining 2,000 out of 600,000 shares, as Class B stock, carrying exclusive voting rights. Or the invitation to participate in a well-known root-beer enterprise with

180,000 shares of Class A and Class B common shares with the concentration of control in 3,872 "Management Shares." It savors rather of supererogation to add in the prospectus, "The management of the company will remain unchanged and continue in charge of the members of the Hires family." Or take, if you please, a well-known theater enterprise, said to have over $20,000,000 in assets. There will be 4,000,000 shares — 3,900,000 Class A shares to be sold to you and me, and 100,000 Class B shares, in which will be vested exclusive control through voting rights. Furthermore, the Class A and Class B stock will divide the net earnings 50-50.

There is no concealment about all this. It is perfectly open and aboveboard. But who, we ask, under these circumstances has really given a hostage to fortune, to the public, or to the employees for honest and economic management of the business? The promoters stand to lose only the amount of their stake — a minus quantity in dollars in so far as the nonvoting shares have been made to cover not only the value of the tangible assets but the prospective capitalization of earnings. It is the public stockholders, the consumers and the wage-earners, who stand to lose in event of misdirection. How can there be other than a whirlwind of abuse of power under such conditions?

Nor is it our great basic industries which are being swept by this plague. Most of the great combinations had their rise twenty-five years ago, with a minor outbreak in 1911–12. Today it is neither the Steel Corporation nor the Harvester Trust nor the railroads which are following these newly beaten paths. Look at the newspaper offerings! The public is buying out the mail-order, chain, and department stores, foodstuff manufacturers, the makers of washing machines, refrigerators, confectionery, make-believe-silk stockings, toilet and beauty preparations, music, tags and napkins, phonograph records, pianos and radio outfits, theaters — our daily bread, our ice cream, root beer, cake, and even our homemade pies. At this rate every conceivable article of direct or indirect consumption will soon be more or less in the hands of the general public.

Most disconcerting is it when this latest financial development invades the field of public utilities, already sufficiently cluttered up with holding companies and trusts. The older and conservative companies

are above criticism. But one takes exception to the offerings of the Southern Gas and Power Corporation, with an authorized note issue of $2,000,000, preferred stock $5,000,000, and Class A 250,000 shares, leaving the exclusive voting power, except in case of default in cumulative dividends, in 100,000 shares of "common stock, without par value." It is these last which are not offered to the public at all. This organization controls operating companies in thirty-seven communities, scattered over eight different states. Was there ever a clearer case in an essential public industry of what has been well defined by an expert as "one of the besetting sins of modern corporations . . . the custom of trading on a thin equity, control resting in the hands of common stockholders while the funds are supplied by the sale of preferred stocks and bonds?" Had this author written in 1925, he would have added "and even of a large number of common shares which have been stripped of voting power." Then he would have hit several nails squarely on the head with one rap of the hammer.

III

There is of late another financial practice, also, which greatly accentuates this nullification of the ordinary shareholder. This is the wide distribution of stock to employees and the consumers of the corporation's product, whether electric service, steel, or what not. The effect in any event is bound to be cumulative with that of the insinuation of professional management power between ownership and operation.

Corporations have always been susceptible to control by concentration of voting power. Far less than half of the capital stock may be as effective for such control as possession of an actual majority. But it is elemental — requiring no proof — that the larger the number of shareholders, the more easily may a small concentrated block of minority shares exercise sway over all the rest. With a dozen owners, probably 51 per cent will be necessary for dominance. With 300,000 scattered holdings, a possible 15 or 20 per cent of the votes can never be overmatched at an election. In 1923 there were 250,000 new stockholders registered in the electric light and power companies alone. The total number of stockholders in all sorts of concerns has almost doubled since 1900, rising to an aggregate of 14,423,000 in 1923. These shareholders

now possess over $70,000,000,000 worth of stock at par, on the showing of the Federal income-tax returns. Such possession used to be confined to the wealthy and the well-to-do class. Now it comprehends the small householder and large numbers of wage-earners. The former concentration of wealth is now yielding place to so wide a diffusion as to call for public recognition by way of legislation or oversight. But the important point to note is that the wider the diffusion of ownership, the more readily does effective control run to the intermediaries. Financially, the matter is dangerous, for it tends to transform a contingent outstanding charge upon earnings into virtually fixed charges thereon. The cessation of dividends, either to employee holders or to consumers, is bound to be so productive of discontent and unrest that every nerve will be strained to the utmost, even overlong, to prevent their cessation.

But there is more yet to this story of the rape of the public stockholder! Far too many of these new securities are subject to the following proviso, which looks white enough superficially, but which has more than an indication of color at the base of the finger nails: "No holders of stock of the corporation, of whatever class, shall have any preferential or other right of subscription to any shares of stock of any class, or any securities convertible into shares of the stock of the corporation, nor any right of subscription to any thereof, *other than such, if any, as the Board of Directors in its discretion may determine, and at such price as the Board of Directors may fix;* and any shares or convertible securities which the Board of Directors may determine to offer for subscription to holders of stock may, as said Board of Directors shall determine, be offered to holders of any class or classes of stock at the time existing *to the exclusion of holders of any or all other classes at the time existing.*" Such clauses, with devilish ingenuity, look sound enough above the water line; but they certainly will not stand examination in dry dock. For not only has the shareholder parted with every vestige of control of the enterprise represented by his investment, but now he makes a free gift of such rights as may accrue, resulting from future growth of the property. Heretofore it has been a fundamental rule in corporation law that there shall be no discrimination whatsoever among shareholders. Discrimination there may be between creditors and owners; but by this device even the common shareholders are now set off, to the end that an

inordinate share, if indeed not all, of the increment of profits in future shall attach to the holdings of those who are "in the know."

Why do stockholders submit to such indignity? The technique is simple, relying upon a fundamental attribute of human nature. Mr. Robert F. Herrick of Boston, in a frank address on holding companies, describing the manner in which the exchange of shares in one corporation for those of another may be brought about, thus puts it: "All the stockholders act like a flock of sheep. In the main they follow the lead of the directors, and if the details of carrying the plan through are so arranged that the stock in the new company has an apparent money value greater than the stock of the old company for which it is offered, the exchange once started takes place generally, and when a majority of the stock in the companies is exchanged, practically the consolidation is effected." There you have it in the words of an expert!

IV

It will be objected that no real change is involved in these recent tendencies: that stockholders never did, and never will, exercise their voting rights. In fact the great trouble, oftentimes, is to secure enough proxies in widely owned corporations to validate the acts of their directors. But the fact remains that the power, even if rarely exercised, and then only under extreme provocation, was there; and every once in a blue moon some resolute individual or stockholder could rise in his place and organize a protective committee or dissenting group — and, if nothing else happened, at least there was a thorough ventilation of what sometimes proved to be a musty or unsafe tenement. Furthermore, one of the most encouraging things in life is the influence that can be wielded by an individual, acting almost single-handed and alone, to confront and often to overcome a corporate Goliath, provided he has the right on his side. My mind runs to the extermination of the Louisiana Lottery by a former colleague, Professor Homer Woodbridge: think of it — Professor of Heating and Ventilation at the Massachusetts Institute of Technology! Or recall what Charles and Philip Cabot achieved in bringing about the elimination of the seven-day week and the twelve-hour day in the United States Steel Corporation! Or Lois Burnett Rantoul, undauntedly facing down every corporate influence in the Massachusetts legislature, and

bringing about the enactment of the first eight-hour-day law for women and children in the United States! Such things as these give one good heart, leading to the belief that the power of personality, alone, may win the most astonishing victories in the face of overwhelming odds. But all such achievements in this field of management of property are closed out forever, once the people who own that property have allowed themselves to be utterly divorced from the exercise of their natural right to elect the directors and to influence, if not to determine, the corporate policy. For by such an abdication they give themselves over, body and soul — becoming mere wards, *non compos mentis*, so far as control over their own affairs is concerned. It is all so absurd, theoretically, that it seems incredible. Yet here are the facts!

But if the trend of corporation law and practice has been so consistently in the direction of diminishing rather than of accentuating the responsibility and accountability of the real property-owners, what is to be done about it? This, to my thinking, is a matter of vital concern to the successful functioning of our capitalistic system. For, at this particular juncture, the final deathblow to such accountability seems to be in the very act of delivery. Many suggestions have been made from time to time; some of them have already been successfully applied to our railroads. A few now bear upon our other public utilities. But absolutely nothing has yet been done to stem the current, much less to reverse it, as respects private business corporations. Something, to be sure, has been accomplished in the way of enforcement of liability for downright mismanagement or negligence, as against directors. But all such remedies, even when successfully invoked, — as, for example, on the New Haven Railroad, in the Old Dominion Copper suit, or in the well-known American Grass Twine and American Malting Company proceedings about 1903 — are but cases of hanging the murderer after the innocent victim has expired. The reliance upon the courts, also, at best entails protracted and expensive litigation. Furthermore, too great an increase of such liability of directors, with the possible harassment of blackmailing or other proceedings might readily enough make it impossible in future to secure the services of really able and responsible persons. Something may possibly be accomplished in this direction, but other and simpler remedies would seem to lie more nearly within reach.

Why not restrain the holding company? "Swat it!" says one public spokesman. I would do so: yet ever with a nice discernment. The fly — bluebottle, horse, domestic, or gad — is always a pest. Not so the finance corporation. It has its proper place and function in the scheme of things. But within that domain it should be rigidly confined. The very complexity of our form of government, involving relationships which transcend state boundaries, almost inevitably brings forth a litter of creations deriving their powers from the governments of the different commonwealths. This is a necessary outcome of the local demand for compliance with local needs. Piling of one corporation upon another also simplifies finance and management, augmenting credit and enabling large-scale operation and the employment of higher-paid technicians. But it is also true that a large part of this complexity is the result of a deliberate intent to assume and concentrate power in the hands of an inner circle. The primary test of good faith is mathematical. When the Associated Merchants Company (of Connecticut) controlled, as it once did, the H. B. Claflin (dry goods) Company (of New Jersey), which in turn owned the operating H. B. Claflin and Company (in New York), by ownership of 45,001 out of 90,000 total shares, appearances are certainly against the arrangement; but when, as in the Continental or Purity Baking Corporations, recently set up, a bona fide attempt is made to secure all of the shares in the many operating concerns, the advantage and even the necessity of the plan is obvious.

Wade Ellis, the then attorney-general of Ohio, speaking twenty years ago, stated, in words which now seem prophetic, the case against the holding company:

> This is the most effective, the most invidious, and the cheapest of all combinations in restraint of trade. It is the most effective because, while agreements, and especially unlawful ones, may easily be broken, a transfer of the stock puts the bargain beyond the power of any conspirator to escape. It is the most invidious because, while it conceals all, it fears no exposure. It is the cheapest because it requires less money to buy a controlling interest in the stock of the competing companies than it does to buy their property, and yet the promoters have the use of the investment of all the minority holders in all the corporations brought under their control. In fact it generally requires no money at all, for the stock in the subsidiary companies is paid for in the stock of the holding com-

pany. Thus a vast industry is brought under the domination of manipulators whose circulating medium would not be a legal tender anywhere except on the stage.

I venture to suggest the possibility of drawing the line between the use of such a device to concentrate control in the hands of insiders, contrary to public policy, and the performance of its legitimate function in the field of business. What a dull and rigid life as human beings we should be compelled to lead if our backbones were fashioned all in one piece. Even a corporation, to my thinking, may benefit from a proper amount of articulation. But it need not be a vaudeville contortionist, for all that!

V

What shall be said of the proposition that bondholders should be given voting rights, *pari passu* with the stockholders? One of the first acts of Governor Roosevelt of New York in 1900 was to appoint a special commission to draw up a model Companies' Act. Section 61 of this proposed statute made it permissive to confer voting power upon debenture- and bondholders "equal and equivalent to the stockholders'." Most eminent legal talent supports this contention with reference to railroads. I have always believed it desirable and feasible, whenever it is apparent that the real capital in the enterprise was provided through the sale of bonds, leaving the stock merely to represent real or anticipated capitalized earning power. Too often in the early days this used to be true of railroads. Many of them, however, have now waxed prosperous enough to fill out the measure of their financial clothes. The present situation among purely private corporations, in this instant wave of transformation, thoroughly supports the proposition that for many of these companies practically all of the real capital is advanced either by bondholders or by those who hold preferred stocks, which are in reality bonds. They are bonds in every vital respect, except that they have no foreclosure rights. But the preferred stocks have been bereft of all voting power, except and until the cessation of dividends. The amount of them issued, moreover, coupled with the Class A participating or nonvoting common stock, not unusually nowadays equals the full measure of material assets, plus capitalized present and prospective earning power.

The proposition to enfranchise the bondholders, at least, is yet further fortified by the fact that the great life-insurance companies, which ordinarily confine their investments to bonds, have at their disposal expert financial talent of a high order, which might serve most acceptably upon the directorates of many of these companies — say, for example, public-service corporations or the larger purely private business concerns.

The objection offered whenever I have advanced this proposition is that the bondholder is a "money-lender" and that his intrusion into management "ignores the private property rights of the stockholder." Stockholders, forsooth! Who are they, indeed, in Dodge Brothers, Inc., where the only real stockholders — that is to say, those who have any power of direction — are bankers who have, for a handsome consideration to themselves, condescended to strip all the voting power from three quarters of the common shares — that portion alone which is sold to the public. Perhaps somebody will have the temerity to maintain that the remaining quarter — of Class B common shares, having "exclusive voting powers for all purposes," which the bankers retain for control — as exclusively represents the real owners of the property. Tush! Everybody else is no more a stockholder, so far as management is concerned, than is the elevator boy or the apple woman on the corner.

Another pulmotor for the possible resuscitation of this moribund stockholders' responsibility is that of cumulative voting. For ten years past it has been my privilege to serve as a director of the Rock Island Railway, whose ancient charter, Section 9, permits each stockholder either to vote "for as many persons as there are directors to be elected, or to cumulate such shares and give one candidate as many votes as the number of directors, multiplied by the number of his shares of stock, shall equal, or distribute them on the same principle among as many candidates as he shall think fit." That proviso put a watchful minority at the switch, at least until such time as mutual confidence and friendly relations all round had cleared up the situation. Thus is the standard provided of at least a temporary two-party system, which conforms to the praiseworthy criterion set by the *Railway Age*, "that there should be someone continuously watching the detailed operation of the road in the interest of stockholders, other than the controlling interests, and

in the interest of bond- and note-holders." The conservative constitution of Pennsylvania gave its distinguished approbation to this plan, by requiring at one time that all corporate charters should provide for elections under such cumulative voting. Many of the great British banks, including the Bank of England and the London and Westminster, graduate the voting power of shares, to prevent superdomination by the large stockholders. Roosevelt's New York Commission in 1900 recommended the authorization, in a model Companies' Act, of "any plan of cumulative or proportional voting." Granted that the proposal needs safeguarding, to prevent obstructive and holdup tactics, it nevertheless embodies a principle worth consideration. We ought to be adopting the practice today, instead of splitting off the management shares from the main body of the capitalization.

Inside control in practice often relies upon the voting rights attaching to floating stock in the market — that is to say, stock which is passing so rapidly from hand to hand that, for convenience' sake, it remains often for many years registered in the name of banking or brokerage houses. And, in the case of non-dividend-paying corporations, the proportion of such floating stock may be so great as, in and of itself, to carry control. And a system, not unlike logrolling among Congressmen, under such circumstances enables interchange and common understanding along the "street" to perpetuate control by those who may not, in fact, have a dollar of actual stake in an enterprise. It has been proposed to disfranchise such floating stock. It might be serviceable; but the practical difficulties in the way of carrying out such a plan seem to me insuperable.

VI

This present tendency to strip the public shareholders of their voting rights may be checked, either through revision of our corporation laws, or by a vigorous attitude on the part of the courts. Direct action by the investing class, by boycotting all such offerings of securities, may give even more immediate results. But, in either or any event, no other safeguard against misuse of power by insiders is so likely to be effective as publicity. Nothing kills bacteria like sunlight. A frank sharing of all proper information with the main body of the shareholders is basically

right. It is also in the long run a matter of good business. It is absurd that, as has so frequently happened of late, corporate results of operation should be given to the real owners, not every month, not even twice a year, but only superficially in an abbreviated annual report. The stockholders are entitled to know the amount of gross business, the cost of conducting it, and especially the policy as respects depreciation and upkeep in full detail, in order that they may benefit by the intelligent judgment which competent experts will then speedily pass upon the real status as to net earnings. The United States Steel Corporation and the American Telephone Company are forthstanding examples of the value of such frank publicity, as a recommendation to the world at large of an investment; and any corporation which pursues the opposite course thereby invites and deserves distrust and suspicion. Yet it is unfortunately true that the policy of some of the charter-mongering states — Delaware, West Virginia, and the rest — has been to discourage, rather than to develop such full disclosure of the state of affairs. For private corporations, the present situation as concerns stockholders' rights to information is most unsatisfactory.

Our experience with railroads is significant in this connection. They still deserve and require a greater measure of liberality in the matter of rates than has yet been granted by the Interstate Commerce Commission. But, this step once taken, they will be at last well on the road to a safe and stabilized investment for the great body of the people. It is clear already that the best of them are slowly assuming their rightful place in this regard, forging steadily ahead through the turbulence of speculation in so many other forms of enterprise. For speculation germinates in and thrives upon mystery. It is indubitable that this stabilization, even though it is yet on a subnormal plane, is largely the result of the complete publicity and standardization of railway accounts under Federal supervision. Several million investors may well be content to leave the management of their railroad possessions in the hands of others, knowing that, quite apart from the regulation of rates, this standardized publicity permits a scientific check, month by month, upon policy and results. How different is this from the manner in which even some of our nation-wide private industrial corporations do business all over the United States, cloaked and hooded like the despicable Ku Klux Klan.

The clause of the Roosevelt New York Companies' Act of 1900 which, as a penalty for failure to render detailed and current reports of operation, proposed to disqualify directors, making them ineligible for election for the period of a year, may be impracticable. Yet there may be the germ of an idea in the suggestion.

A brief address upon this subject recently, before the American Academy of Political Science, seems to have hit the crazy bone of a certain type of self-appointed spokesman of the quasi-public companies. The mere suggestion of governmental supervision, as applicable to them, in lieu of the vanishing rights of stockholders, was characterized — rather breathlessly, it seemed to me — as an attack upon "all American business as honeycombed with dishonesty and greed; and all executive management as fraught with irresponsibility, indifference, and worse . . . using the traditions of a great institution of learning to spread an exaggerated impression of American business — the kind of propaganda on which demagoguery and communism feed." The soothing allegation that a beneficent economic revolution is occurring by reason of the widespread diffusion of corporate ownership is said to be "berated and rejected with a violence of invective and an indiscriminateness in denunciation that would make a Socialist orator blush for shame."[1] Fortunately I am privileged to introduce a witness in my own defense. The Committee on Public Securities of the Investment Bankers' Association of America reported in 1923 as follows: "When administered with the broadest power, and in a judicial manner, state-wide regulation of public utilities has been conclusively proved, in the opinion of your committee, to afford the best guaranties which investors can have in this country for a maintenance of that integrity of investment *necessary for a ready flow of money into the business.*" (Our italics present the concern of all the people — owners and consumers alike — in the matter.) For further discussion on the point, we may refer our critics to this distinguished body.

[1] The speaker is Henry M. Brundage, first vice-president of the Empire State Gas and Electric Association and vice-president of the Consolidated Gas Company of New York.

VII

What, then, is the present status of governmental supervision over public-utility companies — other than railroads, telephones, and telegraphs — in the United States? The fact is that nearly all the commonwealths have regulatory bodies, most of them, however, having jurisdiction only over such matters as rates for water, gas, and electric light and power. The present situation, therefore, as respects these operating companies is quite reassuring. What concerns the future is the hierarchies of holding companies, superposed one upon another — the piling of Pelion upon Ossa to the seventh heaven. This is provocative of grave concern, for it is in the heights that the real sources of power find place. The experience of the little Boothbay Harbor company is entirely typical. But, to nail the conclusion, take the Pine Bluff, Arkansas, local operating concern. This is controlled by the Arkansas Light and Power Company, which is a part of the Southern Light and Power Company of Delaware, also controlling the Mississippi Power and Light Company, the Louisiana Power Company and the Louisiana Power and Light Company. And the whole congeries of them has been in turn acquired by the Southern Power and Light Company, this time incorporated in Maryland, which seems to be a part of the Electric Bond and Share Company of New York. Being the proud and happy possessor of some shares in this last-named corporation, I am thrilled with the sense of immediate participation in the local concerns of Pine Bluff, Arkansas! But that question has already been discussed from the point of view of the private owner. As concerns the public, it is self-evident that something besides superpower of electrical energy is entailed — and that is the growth of interstate corporations which are superpower systems of a different order. And for dealing with them we, as a people, have no machinery whatsoever.

Thus we are brought squarely to the perennial issue of Federal *versus* state authority. Whatever is to be done about the affairs, either of private corporations dealing in the necessaries of life in more than any one state in the Union, or with, let us say, the Associated Gas and Electric Company, which supplies "electricity and/or gas and/or water, to over 300,000 consumers, serving a total population estimated at ap-

proximately 2,000,000 in more than 900 communities in New York, Pennsylvania, Maryland, Massachusetts, Connecticut, Vermont, New Hampshire, Maine, Kentucky, Tennessee, and the city of Manila," must evidently be done on a larger basis than a single commonwealth affords. (In passing we may note that this Associated Gas and Electric Company has $36,600,000 in bonds and almost 500,000 nonvoting shares outstanding with the public. Control is apparently vested in 300,000 Class B shares, no par value.) An experiment is just now being forced upon the three states of Pennsylvania, New Jersey, and New York, concerning the creation of a Joint Giant Power Commission, by the growth of these great industrial units. Necessary they probably are! Sound, for aught that I know to the contrary, they are! But when one of them sprawls over the map from Aroostook County, Maine, to the Philippine Islands it is time to think what it means. And the contention that such concerns are already thoroughly controlled or supervised in the public interest, because forsooth each of their local operating companies is subject to existing state laws, would seem to be rather effectually disposed of. This is one of those rare cases where two and two do not make four, but something well over a dozen. It is inconceivable that joint giant power commissions should be set up by different groups of states, each group corresponding to the especial scope and extent of the particular corporation which it is intended to supervise. The answer, alas, seems to be always the same. If anything needs doing, there is but one agency to which to turn — exercise of the Federal power.

There are already at Washington three agencies which may conceivably become involved in these matters under discussion. But the simple, the logical, the inescapable conclusion is that superstate public-utility companies should be placed under the jurisdiction, either of the Interstate Commerce Commission, as the telephone and telegraph companies along with the railroads now stand, or else under an amplified Power Commission, similar to the one in the Department of the Interior which at present concerns itself with the licensing of water-power companies. Whether their rates need to be, or practically can be, thus regulated is another matter. But that their accounts ought to be formally standardized and made public is beyond all possible question.

What, then, about the private corporations, when direct responsibility

for their management by the shareholders seems to be by way of evanescence? Whether this tendency be arrested or not, a greatly added measure of publicity ought by all possible means to be stimulated. Standardized accounting for all private forms of business, already so successful in the case of railroads, telephones, and telegraphs, is probably hopeless of expectation. The variety of circumstance and the multifarious exigencies of each and every kind of business would present to any administrative agency a task transcending human power. And yet certain norms might well be set up by some such body as the Federal Trade Commission. To take a pressing instance: the present *impasse*, so far as bringing intelligent public opinion to bear upon the anthracite coal strike, might never occur again, were the recommendations of the Federal Coal Commission of 1922 respecting standardization of coal-mine accounts actually in force. The policy of what has been aptly termed "induced cost accounting" might well be elected as part of a general campaign of education by some Federal body. Let us hope it will not be one possessed, as the present Federal Trade Commission seems to be, with a sole and apparently overwhelming disposition to commit hara-kiri!

A mighty and preëminently important duty is imposed upon the Federal government by the general conditions respecting corporations which thus seem to be headed toward a climax. Whether the means for a restoration of responsibility shall be suggestively educational or strictly regulatory must depend upon circumstances. Perhaps we should revive the question of Federal incorporation, so ably advocated by President Taft in his special message of 1911. This, or a Federal license system whereby permission to engage in interstate commerce entails compliance with certain standards as to corporate structure and publicity, deserves attentive consideration. The report of the committee of the British Ministry of Reconstruction of 1911,[1] dealing more specifically with trade associations than with corporations, was a response to somewhat the same great need which is making itself felt at this time in the United States.

[1] This standard British Blue Book can be obtained through the British Library of Information, 44 Whitehall Street, New York City.

VIII

I would not conclude with the advocacy of any particular plan. The first duty is to face the fact that there is something the matter. For a remedy I am groping as yet, like a child in the dark. I am conscious that things are not right. The house is not falling down — no fear of that! But there are queer little noises about, as of rats in the wall, or of borers in the timbers. I believe that the trouble has to do with the growing dissociation of ownership of property from responsibility for the manner in which it shall be put to use. And now is the time for action. It is not yet too late. Millions of our citizens made this first essay in thrift as a result of the great Liberty Loan campaigns during the war. It has been estimated that of the 14,400,000 stockholders in the United States no fewer than 3,400,000 were added within the three years following 1917. This betokens a great incursion into the field of investment by the common people — corporate possession being shared by those of moderate and small means with the wealthy class. The movement has been called "an economic revolution" — "the passing of ownership from Wall Street to Main Street." What would be the effect were these newcomers — consumers, employees, or others — to discover some day that ownership and control had parted company, each going its way as ships that pass in the night? Suppose that the ownership of many industrial plants, great and small, continues to reside all through the countryside, but that the lodgment of the power of direction has shifted to the great financial centers. We have had experience, to our sorrow, with the old sectional divisions between the East and the West. Is there no smouldering spark in this matter of corporate control, which may some day flare up as a political issue of the first order? I do not look to Sentinels of the Republic or to anti-syndicalist laws for the ultimate safeguarding of our institutions. Our security, in the last instance, must rest upon the ever-wider prevalence of what Lord Bacon held to be "clear and round dealing among men!" With that assured, we may quite confidently leave all the rest to take care of itself.

IV. AN ILLUSTRATION OF MODERN TECHNOLOGY: THE FORD MOTOR COMPANY[1]

By Fay L. Faurote

Mechanical Engineer and Co-Author of "Ford Methods and Ford Shops"

Any analysis of the Ford methods of management must, of course, start with an exact conception of the objective. There must be a clear understanding of what is being done. First, then, let it be set down that the Ford objective is not merely a low-priced motor car, but an economical means of universal transportation in a form which will be equally serviceable the world over, of such simple construction that anyone can understand its mechanism and take care of it, and, of course, at as low a cost as possible consistent with good quality. Its parts must be interchangeable.

Professional observers too often spend all of their time observing processes, watching the men work, concerning themselves with details of management, of materials handling and machine-tool operation, without giving much thought to the product. After all, the product is the thing. It is the final test of management. Is the product good? Will it stand up? Is it worth the price, and is the price lower than that charged for a similar article? That is the acid test. . . .

Ford practice demands clear instructions — clean, complete, accurate drawings; detailed operation sheets; a careful specification of materials to be used; the exact layout of machinery necessary for each process; the direct line of progress, so that no reversals will be necessary; an adequate clerical force to control the inventory, to make sure that plenty of stock will be forthcoming when needed, that no surplus will be allowed to pile up at any point along the process line, that the department supply of both raw materials and finished parts shall be adequate at all times and in their right places. Provision must be made for suitable machine

[1] Adapted, by permission of The McGraw-Shaw Company, from a series of articles published in *Factory and Industrial Management*, February, March, April, and May, 1928: volume 75, pages 302–306; 542–545; 769–773; 984–987.

division, so that as many operations as possible can be performed on any one machine without removals; for a conveyor system that will move the product from one operation to another with a minimum loss of time and the least effort on the part of the operative; for placing in the process line the necessary furnaces for heat-treating, inspection devices for checking the accuracy of parts between operations, devices for oiling stock, cleaning and drying it before or after detailed operations; for maintenance of the production machines in operating condition at all times to insure continuous production. There must be the proper lighting, heating and ventilation of the shops themselves. . . . And, finally, transportation facilities for removing the finished product and distributing it to its proper destination quickly, economically and with the least expenditure of time and money must be provided. These are some of the innumerable problems with which a large organization has to deal in furthering its operations.

For good judgment, facts must be at hand. To have facts requires experience or a close contact with the business, or a familiarity with sources of such information. The Ford Motor Company has all of these. It has facilities for the collection of facts; more facilities than any other organization with which I am familiar. It is daily adding to these facts by laboratory work, by research, by testing, by original thinking. Engaged exclusively in one great industry, the company's executives have unexcelled opportunites to become experts. An almost unlimited supply of money and the world-wide extent of activities have widened the scope of Ford research so that it includes all departments of knowledge. There are men of nearly all nationalities in the shops, tool rooms, offices. The condensed experience of the world is precipitated on Ford drawing-boards and in the Ford laboratories.

Like other shops, the Ford Motor Company has its problems of material supply, shortages, transportation of raw and finished parts; its problems of machine placement, special machine and special tool design; its problem of preliminary training of men unaccustomed to the job, the Americanization of foreign labor, the control of shop practices, the elimination of the weaknesses of industrial management, involving the division of the work and responsibility between the management and the workmen themselves; the problems of foremanship, the control of evil or

slovenly practices and wasteful methods. These are all present in the Ford Motor Company. They all have to be solved, and are being solved today on a vast scale. . . . In solving problems the company has revolutionized machine work, it has altered processes, it has substituted broaches for drills in many places, shapers for milling machines, drum-type milling machines for the flat-bed type on new jobs, made bushings from ribbon steel, formed piston pins by the extrusion method, widened the use of welders, invented new automatic devices for handling, new methods of conserving power, heat, and material by-products. It has indulged in revolutionary practices in the use of material, it has speeded up its machines far beyond the point believed desirable by conservative machine-tool manufacturers. In solving problems it has pushed material and equipment to the breaking point to find out what was the ultimate. In many cases vast unexplored areas have been uncovered.

Among the unique and new machines used in fabricating the Ford Model "A" may be mentioned the upsetting machines, batteries of gear-shapers, automatic presses for forming frames and other pressed-steel parts, hot-metal spinning machines for forming rear-axle housings, special steel-handling machinery such as giant shears, pipe-bending machines, brakes, power hammers for forging, electric welders, spot, butt and seam, for welding gasoline tanks, body parts, axle parts, and many other minor components. Ingenious uses of gear-shapers and automatics, continuous milling machines, electric heat-treatment furnaces, spring forming and quenching machines, and a variety of balancing, polishing, lapping devices, automatic inspection gauges, scales, testing racks, and hydraulic and electric testing machines help to make what might be difficult jobs in the ordinary shops a matter of almost monotonous routine in the Ford plant.

The fact that Ford controls many of his raw-material sources makes it possible for his executives to carry on extensive experiments along definite lines. Thus many problems of structure are solved before they reach the production shops. New steels are developed, new alloys made, new methods of resisting corrosion found, new machine-tools invented, new processes set up, new forms of interior and exterior transportation designed. Incidentally, costs are greatly reduced. Thus, at the outset, Ford begins with judgment based on facts. In many cases his conclusions

are just the reverse of those ordinarily held by experts in the automotive world.

It will be observed that there is a point reached in mass production where large or expensive special machines become efficient and are usable. The initial cost of these machines is so great that the small manufacturer cannot afford to use them; but when, on the other hand, the production of a part reaches several thousand per day, expenditures of thirty, forty or fifty thousand dollars for a single machine may become warranted. Furthermore, the scrapping of obsolete machinery becomes possible; in fact, imperative. This, of course, has happened in the Ford industries. For example, when *Ford methods and Ford shops* was written in 1914, it was advanced practice to machine the cylinder blocks on a flat-bed milling machine. At that time this was considered the height of efficient practice, but this process is now obsolete in the Ford Model "A" production. Drum-type continuous milling machines have been substituted. They take up less space, are continuous in their operation, and apparently do a better job.

Routing and time and motion study

While we are on the matter of floor space, it is interesting to observe how the Ford engineers have conserved it. If a machine-tool is purchased that has a longer table or base than is needed, it is at once cut off. In making the floor layout, drawings are made to accurate scale, so that when a piece of mechanism comes into the factory the maintenance men know exactly where to place it, and it is placed in such position that the material coming from the last operation will be as nearly as possible in the exact position for the succeeding one. If a sheet of steel, for example, needs to be oiled or cleaned, the oiling-roll or the washing machine with its drier will be set just there in the process line. If it needs to be annealed, there will be an annealing furnace in that place and, incidentally, if a conveyor is carrying the material, a conveyor frequently goes through the furnace. There is no taking of the material from the machine to the annealing furnace and back again. All needed tools and materials are at hand; seldom does the workman have to take more than one or two steps either to the right or to the left. He seldom has to bend over. Work is delivered waist high and in the best place for his convenience.

But this does not mean that advantage is not taken of any method that will conserve time, labor, heat, materials, space, or a by-product. If it becomes necessary to put a part through an electric furnace, you will frequently find that if there are four rows of material going through this furnace on conveyors, alternate ones will be fed in from opposite sides. Thus the heat of the material will be used to warm up the incoming part, so that by the time it reaches the "normalizing zone" little extra heat will be required to bring it to the desired temperature. In gas or oil furnaces the lower furnace will be used for the higher heat, but the upper section will be utilized in turn for a drawing heat. Transportation is frequently made to yield profit by accomplishing a drying operation at the same time.

Awkward, unnecessary, or ill-advised motions or movements on the part of the men are avoided. Processes are so laid out that certain movements are necessary. Space is so constricted that these motions must be made in certain directions. It thus becomes second nature for the operations to be standardized. That is the easiest way. The workman naturally drops into a habit of inserting the piece in a certain manner, and maintains this practice as long as he is on that particular job. When the job is subdivided into one, two, or three operations, and these operations carefully watched, it does not take long before the best and easiest way becomes apparent even to the untrained mind. Some of the best suggestions for improvements in processes come from the men themselves.

The control of materials

A speedy turnover is always desirable; a small inventory likewise. A safe and sure source of supply, and uninterrupted and adequate transportation from material sources to plant storage, are equally essential.

In the Ford industries these conditions are satisfied. The fact that some forty-five basic industries are made to contribute their products to the final result makes it a vertical organization of more than usual interest. The company owns mines — coal, iron, lead, garnet, and silica; textile sources for linen, cotton, wool, and artificial leather; vast hardwood forests in Upper Michigan; a fleet of lake- and ocean-going vessels; a railroad, with some ninety-two miles of trackage inside the Fordson plant alone; a distributive "high line," elevated above material

bins which have a capacity of two million tons; a cement mill; three glass plants — at Fordson, at Highland Park, and at Glassmere, Pennsylvania; two blast furnaces; coke ovens; a steel mill; a paper plant; a flour mill; a wood-distillation plant; a large foundry; a half-million-horse-power power plant burning pulverized coal and blast-furnace gas, combined with a network of outside small plants, variously powered and equipped. These make certain the control of raw materials, their storage and ultimate distribution to the point of final usage in ample and uninterrupted stream, and their final fabrication into a finished product without expensive holdups, delays, or curtailments.

The conservation of time

The conversion from raw material to the finished product is accomplished in a surprisingly short time. In fact it has been estimated that, under normal production, such a metamorphosis is completed in less than three days. Material entering on Monday at 8:00 P.M. rolls away on wheels before noon on Wednesday. Computations indicate that after a trip of approximately forty-eight hours from Marquette, Michigan, to the Fordson plant, ore is removed from the boat by Hulett unloaders, transferred to the "high line" and from there to the skip-car, and may be put into the blast furnace in ten minutes. Sixteen hours later the ore has been reduced to foundry iron, cast into pigs, and sent to the foundry where, mixed with certain proportions of scrap, it is remelted and poured as cylinder blocks and other castings. This takes about four hours in all.

Blast-furnace metal is also cast direct, in which case about four hours are saved. The cooling and cleaning process requires several hours. The castings are then ready for their first machining operations, which are performed on drum-type milling machines. At about noon on the second day the motor assemblies are complete. Running-in, testing, and assembling in the final-process line take, roughly, another day. About fifteen hours are allowed for shipping and handling.

The planning of production

Despite the size of the organization, and the comparatively small number of forms used in controlling the material supply and the progress of the work, the engineering and drafting departments leave little to chance and nothing to the individual decision.

First, there is a careful estimate made by a man whose experience makes him competent to predict Ford requirements. The drawings give full specifications, dimensions, heat treatments, and so on; the operation sheets specify not only the operation but the machine and the number of the machine to be used, the number of parts required, the production per hour, and the production in sixteen hours, which in most departments comprises the full-time daily schedule; the special tools and fixtures, the standard tools needed, differentiation between hand and tool operations. Nothing is left unknown or ambiguous. This full setting forth of exactly what is to be done, how, where, and when, has been necessary in the Ford Motor Company shop because of the high cost of changes in an organization whose manufacturing activities extend throughout the world. The wholly unavoidable changes cost enough. Avoidable ones cannot be tolerated.

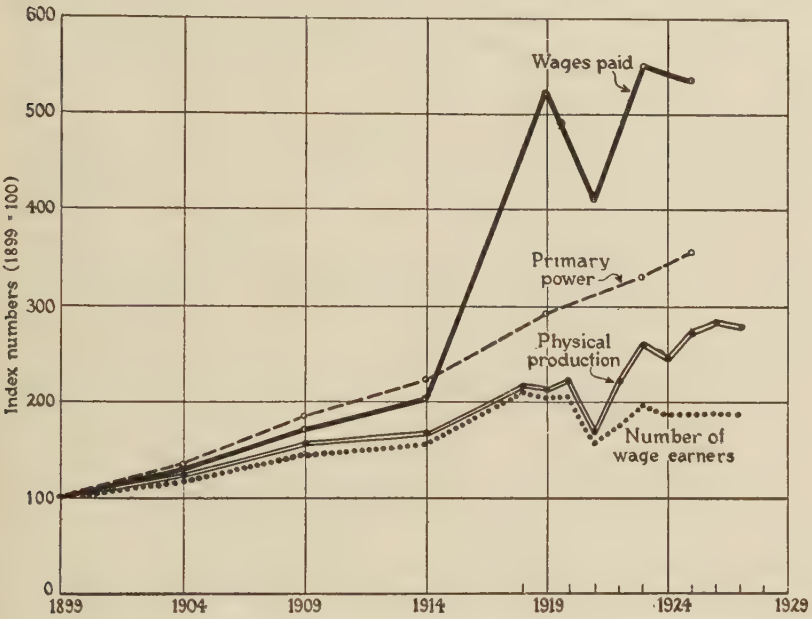
Thus, in the design of the equipment, the selection of material sources and their union with the connecting transport lines, as well as in the working processes themselves, all possible thought has been given to the saving of time, extra handling, and man power. Whenever a link in this chain shows signs of weakening, it is immediately strengthened or taken out. If, for example, the coal supply should, for some reason, become curtailed, the power plant may be fed with other fuel: oil, sawdust, or even refuse can be burned.

Economy and efficiency

The Ford laboratories are constantly working on new substitute materials. Incidentally, the substitute material many times proves to be better than the original. The adaptation of existing equipment to new materials and new conditions of manufacturing is a prolific source of profit increases in the Ford plant, a condition which, according to Mr. Ford's statement, allows the dropping of the price and the widening of the market.

There is another fundamental precept: Keep material moving. It is an economic truism that every square foot of floor space carries a certain and inevitable overhead charge and is therefore a debtor to the plant. Therefore the only possible way in which any square foot can be made to pay its existence debt to the plant at large is to make this square foot of

floor space support a profit-earning load. Of course there must be space for rough-material storage, some for semifinished storage, some for tools, and some for the finished product. It has always been the endeavor of the Ford Motor Company to reduce all of these to the minimum and, in many cases, to do without them altogether. As an example of this the con-



TECHNICAL CHANGES IN AMERICAN MANUFACTURING INDUSTRIES

Trends of Wages, Power, Output and Employment. Data Source: National Bureau of Economic Research, *Recent economic changes*, page 97.

version of iron ore directly into cyclinder blocks through the continous operation of the blast furnace and foundry may be cited.

But there is another use of floor space, which in many factories has been considered wholly justified and unavoidable, but which in the Ford shops has, through the resourcefulness of management, been made to yield a hitherto hidden profit: the occupancy of the shop floor by component parts in the process of finishing. The wide use of conveyors, of process and final-assembly lines, the double use of transportation time for the performance of a second operation, other than transportation it-

self; these practices differentiate the Ford plant from many others engaged in similar manufacture. True, there is not such a wide difference now as there was ten years ago, but to Ford must be given the credit for having originated many of these unique efficiencies. To cite one or two examples: In the manufacture of the Ford frame, an oiling operation is introduced as a part of the transportation from a conveyor to the first press; at a later stage in the same process line a drying operation is performed during its journey from the spraying corridor to the railway car in which it is packed for shipment.

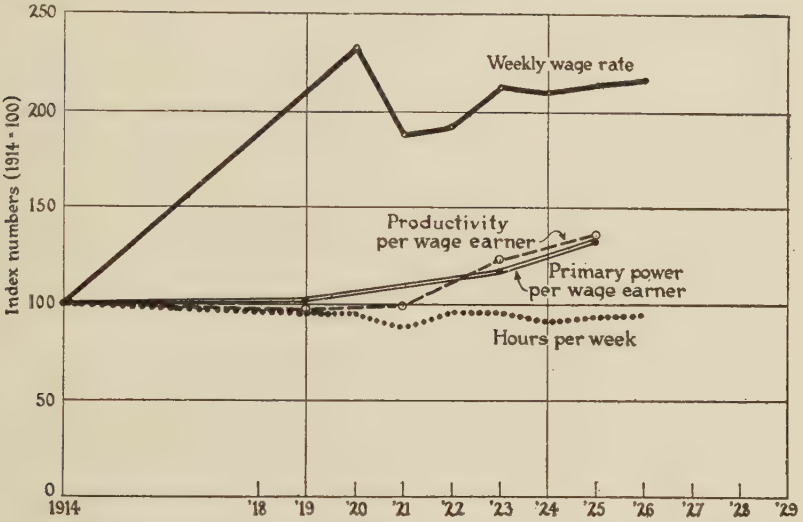
Heat-treatment operations are frequently combined with travel across the shop, through a furnace, or up and down a chimney. Sometimes the work passes outside the building or up into the saw-tooth of a roof to save floor space; sometimes an operation is performed in transit from raw-material source to factory. For example, the dry-kilning of lumber by the introduction of steam coils into the hold of a ship is one of many time-saving ideas.

By the use of conveyors, gravity and roll slides, elevators, cranes, and other handling devices power or gravity driven, the work is kept moving so that little store-room is necessary, no handling and rehandling in trucks need take place, there is no lifting and no bending over on the part of the men, and no damage from rough treatment occurs. The material moves in a direct line from one process to another, and is always where it is needed for the subsequent operations. The total number of motions necessary for an operation on any machine-tool is reduced to a minimum and, in general, it may be said that there are no reverses or holdups in the general process line.

Shop tools required on any specific operation are not drawn by the men themselves but are brought to them. There is very little of even this in the Ford plant. Each machine-tool, as a rule, does one major operation and is provided with all the fixtures or tools necessary. Even the simple operations of filing, taking off burred edges, and the like, have been made machine operations, and the files, cutters, and other incidental tools are supplied at regular intervals based on performance per hour — the cutting speed of a tool and its ability to stand up under the working conditions set by the planning department.

The close grouping of machine-tools in the Ford factories may, at first

glance, seem to be inefficient. There are few wide aisles, and it is with difficulty that one not working in the department traverses the machine shops. But here, again, preconceived conditions compelled efficiency in this regard. One is not supposed to traverse the shop in this manner. There are overhead metal platforms and tubular-railed metal runways provided for visitors and for general shop inspection. Each workman in the machine shop has ample room to perform his operation or series of



TECHNICAL CHANGES IN AMERICAN MANUFACTURING INDUSTRIES

Hours, Earnings, and Productivity per Wage-Earner. Data Source: National Bureau of Economic Research, *Recent economic changes,* page 97.

operations, but there is no waste space. The saving of one step to the right or to the left; the reaching up instead of down; the deliverance of material at the waist-high altitude — these are some of the little things which, individually, do not amount to so much, but which, in the aggregate, bulk large. Always there is this close, critical examination of present methods and the utilization of time- and motion-studies combined with laboratory research to decrease unit cost. This careful supervision extends throughout the entire organization and sets standards for purchasing, transportation, inventory control, deliveries, dispatching, equipment, material and production, inspection, sales, and service.

Single-purpose manufacturing

All Ford plants have one characteristic in common that identifies a Ford manufacturing establishment, no matter where. They are laid out and tooled to make one product in great quantity and in the easiest, quickest and most economical way yet devised. Thus the tool equipment of the company, its character, location, grouping, drive, and the method of progression of the components upon which the work is being done, are of interest to every plant executive.

Fundamentally, the machine-tool equipment is based upon the idea of one-purpose machines. If these machines can be purchased in the open market, well and good. They are simply purchased, set in their proper places in the process line, and put to work. If, on the other hand, a new head, a remodeled bed, or a unique chuck fixture is required, the tool-design department and one of the six tool rooms soon supplies it. The Ford plants are full of standard and adapted machines as well as transportation and handling devices. There are some fifty-three thousand machine-tools in the Ford shops today.

The policy is to determine what is to be done and then provide a machine that will do that one thing well and quickly. At the present time the quality of work being done is such that the machines must do altogether accurate cutting, treating, or fitting. There are many places where men are obliged to work to a ten-thousandth of an inch, and to limits in weight where a slight deflection of a scalebeam means rejection. Many of the inspection methods, even though they are automatic, are extremely selective, and the pace at which production proceeds allows little leeway if the part is not at once suitable for its place in the assembly. Thus machine-tool makers, supplying Ford standard tools, have had a new opportunity in the recent overhauling of the shop to exercise their ingenuity in the production of some of the new standard tools which are now in use.

These tool rooms, too, are to a lover of good machines and up-to-date methods an interesting sight. Because of the use of direct-motor drive, nearly all of the belts frequently found in shops have been eliminated, many machines have been lowered, their moving parts covered over, their understructures made more squatty. So instead of looking through a labyrinth of crossing belts and whirling shafts to a ceiling cluttered up

with supporting beams, one sees spacious rooms, the floor almost covered with low, gray-painted machinery, glistening with well-kept moving parts, the upper spaces clear, clean, and light, under the white-painted girders and the glass.

Making machines to make machines

It is, however, in the production of special Ford machinery that the observer will find most of interest. At Fordson, where these special tools are designed, a large drafting room occupies itself entirely with work of this nature. Established many years ago out of sheer necessity, this department has grown until it now occupies one entire end of a large building. Known as the tool-design department, it is really made up of seven minor departments, each having in charge some special phase of tool design: punches and dies; electrical and mechanical machinery; small tools; cutting-tools, reamers, drills and other small articles used with standard equipment; jigs and fixtures, multiple-heads; furnaces; and conveyors, special machinery, and factory layouts.

When a design has once been determined and the management has decided how any specific part is to be made, the production men and tool-room heads discuss the various types of machines that it is possible to use for its fabrication.

If an existing standard tool can be adapted by the use of a special head or by some minor alteration, an order is given to the tool-design department which makes the drawings and sends them to the tool room specializing in this work. A clearing-house desk, maintained under the tool-design executive, makes the routing of such work mere routine.

If, however, it becomes necessary for a complete new machine to be designed, the work may go through several stages before the finished machine is functioning in the shop. In some of the complicated work a wooden or metal working-model may be required. In many instances such machines have been kept under the supervision of the tool room for several years while a particular process was being improved.

Such special machines, arising as they do from the company's specialized needs, are seldom of great value to other makers. But not infrequently Ford designs, especially those built in coöperation with outside machine-tool designers, have been developed into efficient, quick-production units usable elsewhere.

In building the Ford Model "A," considerable work on new welding machines was necessary. The fabrication of the gasoline tank, the rear axle, the frame, the steel wheels, the new motor and transmission, put heavy demands upon the main tool room, the small-tools room, the die room, the foundry room, the spring and upset tool room and the pressed-steel-die tool room. The forming of the steel-encased bodies, especially, calls for several very expensive dies.

At the same time that the decision is made as to what machine is to be used for a given process, a production rate per hour is set. Many times this rate is in excess of accepted current practice. The new machine must meet or exceed this rate. Sometimes a totally different process from that ordinarily used will be suggested. Sometimes a hand operation becomes a machine operation, and vice versa. The tendency is always to subdivide the process and improve the machine for doing it, the method of introduction of the work, the time required for execution, the time for removal. The height at which the work goes in and comes out is also of great importance because it determines how much stooping the operator has to do in taking the part off the conveyor and putting it back on again.

In operations where a considerable amount of time is required for the operation, there is always an attempt made to get double or triple value out of this time. Instances of this may be cited where drying and transportation are combined; storage and transportation; blanking, punching and forming; transportation and heating; transportation and annealing, and the like.

Because the great power plant at Fordson develops 500,000 horse-power, running economically on pulverized coal and blast-furnace gas, the use of electric current throughout the Ford industries in Detroit is widespread. This makes the transmission of power comparatively simple and direct. It can be carried to the exact spot where it is needed and then applied as heat or power. The transmission lines occupy little space, make the rearrangement of machine-tool, ovens, or welders much easier than it might be in other shops; and contribute much to the cleanliness and shipshapeness of the rooms, their aisles and ceilings.

Such an arrangement makes for safety. There are, of course, safeguards everywhere, of every kind and description — covers, railings,

automatic and hand-operated signals and guards, instruction cards — all of the devices of a well-organized factory safety organization backed by a never-ending safety campaign carried on throughout the entire company. Transmission wires, steam pipes, water pipes, gas mains, the network of the tributary system, are kept out of sight and out of the way as much as possible, running through tunnels underneath or through amply protected spaces just under the roof.

There are six tool rooms at Fordson. In the main room most of the experimental tools are built. Here also the new fixtures, jigs, miscellaneous machine-tool parts, and multiple-heads, are constructed and repaired. There is a large grinding-department, a screw-machine department, and a bronze section. The new welding machines are being made here, also a number of the special-machine tools, the conveyor control and operation machinery, power reducers, and other heavy machine work. There also is a weigh-scale division which tests and maintains all the scales, from the giant 300-ton railway scales down to the delicate half-gram laboratory scales. To this tool room is also brought all repair and construction work used in the assembly lines, the power house, and other reconditioning activities and maintenance work not covered by the maintenance and construction department.

Beginning with the foundation of Johannson blocks, which are now made in the Ford laboratory at Dearborn under the direct supervision of C. E. Johannson, the mechanical equipment of all of the tool rooms is the best that money can buy. Fine precision instruments, optical dividing heads, comparators, microscopes, indicators, a full equipment for accurate thread-gauge work, are all there. Eight sets of the Number 1 Johannson blocks for reference and gauging are kept in the main tool room alone. The master cams for the special cam-milling machines for reproducing cams for all cam-controlled motions are laid out, developed, and made in this main tool room. There are some eighty master cams from which the various cams needed by the Ford organization are developed.

Into the five other tool rooms at Fordson, small tools, dies, foundry work, spring and upset building requirements and pressed-steel-die work come.

Thus in the elimination of waste — in time, material, and man-power

— the machining is efficient. Planning on the drawing board costs less than moving machines on the factory floor. The machine-tool efficiency, therefore, starts with foresight and planning, followed by accurate scheduling and routing. There are standards of performance from which accurate inferences may be drawn. Operation sheets are based on proved practice, not on theory. Predictions must be proved before being put into production.

Because of the standardization of the product, there can be a standardization of equipment and tools. A careful control of inventory made from a survey of operation-sheet requirements allows adequate material handling and transportation facilities to be set up in advance. A study of raw stock and its best use, the purchase of suitable sizes, cuts waste to the minimum. Intensive grouping of machines, yet with ample room for needed movement, the wide use of conveyor systems, and the planned progress of the work in an orderly procession — these fundamental, efficient practices are evident in the shops everywhere.

True, when a Ford model is changed the entire Ford shops have to be changed. Scarcely a machine escapes renovation, renewal, or alteration. The Ford shops are not easily convertible from one model.

Yet is that in the long run a disadvantage? Time alone will tell.

Planning and mass production coördinated

There are roughly 5,500 parts in the new model Ford, which is several hundred more than Model "T" contained. With a daily production of two thousand cars it therefore becomes the duty of the Ford planning and production men to have ready for assembly at the proper time and at the proper place more than 11,000,000 components. With an increase to five thousand cars the totals reach 27,500,000 parts per day. Most of these parts are made in the Ford plants in Detroit, Fordson and Highland Park. Some few come from Hamilton, Ohio, others from the several outlying small plants such as Flatrock, Northville, Phoenix and Waterford. Lumber and wood parts generally come from the plant at Iron Mountain, some of it being brought down from Pequaming and L'Anse during the summer months when lake navigation allows large cargoes to be transported direct to the plant at Fordson in the Ford owned and operated boats. And, of course, outside channels of supply are kept open

at all times. Many standard parts such as bolts and nuts and the like continue to come from outside vendors, but it is Ford policy not to let any one supply stream be too much influenced either by quantity or price. Nearly always enough first-hand information is available from production experience to guide the purchasing department and prevent curtailment or shortages from such sources.

Producing the Ford Model "A"

Planning the production of a totally new car is quite different from maintaining the current production of a familiar model. Much of the routine to which the men were accustomed has now been changed. The parts are not so well known. It takes some time to become familiar with 5,500 parts, know them by name or by the number which all Ford records and parts-books carry. To aid the men in becoming familiar with the principal parts, there are set out in the engineering department several tables on which have been placed the major components and principal assemblies — each properly labeled, tagged and classified. These table exhibits also form the basis of the parts-book illustrations. Only the larger and more important parts are included in this exhibit, but they are a great help in visualizing the job. Incidentally, they reveal in a startlingly effective way the great simplicity of the new model and its remarkable accessibility.

But to start at the beginning, the real work of planning production in the Ford industries commences when the part is designed and reduced to a finished drawing. Ford drawings are complete. They give all necessary details. They contain all information that may be needed by the purchasing department, production heads, heat-treatment control men, inspectors, assemblers, finishers, and packers. In fact, with a set of Ford blueprints and operation sheets the same car is expected to be made exactly alike at as widely separated places as San Francisco and Chicago — not to mention the assembly plants at such distant points as Port Elizabeth, Cape Province, Union of South Africa. Furthermore, provision is still made for right-hand drive cars for those countries where traffic laws and customs the opposite of our own prevail. So much for the drawings themselves.

Complete records are kept of the machines used to make the parts.

A machine-tool register and accessions record of all machines owned by the Ford industries is maintained in the engineering department. Into this book goes the entire history of each machine-tool from the date of its purchase to the present time; its size, type, power, number, purchase number, price, location, original installation, floor space needed for machine as set up, power required to drive it, speed, output, special fixtures, heads, and a variety of symbols, such as M.D., B.A., B.A.P.F., L.T.S., P.C.L., T.A., Q.A.T.S. These symbols, translated, refer to motor driven, back arm, back arm provided for, lever tail stock, power cross line, taper attachment, quick-acting tail stock.

For indexing and assignment purposes each machine-tool is given a special number, and a brass plate bearing that number is fastened to the machine. The plate travels with it wherever it goes, whether in this country or elsewhere. By this record number it is listed and may be located at any time. So when a new or old machine is required for a certain job, the manner of its fabrication is first settled upon and then a machine suited to the work is located from this register. Perhaps a slight change may be necessary, such as a change of fixture or head or tail stock. Perpetual inventory records show these alterations.

If the change is great, a specially designed section may be needed. The tool-design department soon furnishes it, and the machine goes to one of the six great tool rooms at Fordson for overhauling and rebuilding. When an existing machine cannot be used, or in the opinion of the production heads is not good enough or fast enough for the purpose, a special machine will be built. When the new fuel tank was designed, for example, it was decided to make it of terne plate, a steel plate coated with a special rust-proof lead and tin alloy. The tank, in addition to being a reservoir for gasoline, also forms a part of the cowl of the car. It is made up of two main parts, pressed to shape on giant presses and then, after the splash plates have been put in and other interior parts set in place, these two main sections are seam-welded all around so as to form an air-tight tank.

When it came actually to making such a tank, two troubles developed: the seam-welder would not make a perfect seam-weld; the terne plate was burned at some points; at others it was not sufficiently heated to weld. The standard seam-welding machine, although expected to do the

job, did not do it. Obviously something had to be done or the tank had to be redesigned.

Company engineers soon found that the trouble arose from the fact that the flow of current was not constant, that alternating spots of burnt metal and spots not sufficiently heated were caused by momentary peaks and depressions. Furthermore, terne plate is difficult metal to handle; it burns more easily than ordinary stock and will burn if its surface is rough or not properly cleaned. Hence more care than ever had to be taken to do this air-tight job well. As the result of their study, the Ford production experts decided to redesign the welder. The transformer was enlarged, the copper welding disc arms were shortened, Ford type electrodes which are said to give superior current efficiency were installed, the bearing in which the welding spindle ran was altered and mercury introduced, and a Ford type interrupter, which cuts the welding current 360 times per minute as a minimum, thus preventing the burning of the stock under all ordinary circumstances, was put in place of a less efficient standard unit used for that purpose. The new machine is at work today, doing the job well. In fact there are ten of these redesigned electric seam-welders at work today on the Model "A" tank job, running out more than 2,500 perfect tanks per day.

But let us return to the matter of machine classification. After the machines have been selected for the various operations and the building and location of machines decided upon, a complete detailed drawing of the whole operation is made in which every machine is carefully laid out to scale, aisles marked, conveyors, slides, gravity devices for moving materials along, overhead trolleys, cranes, and the rest actually put in to scale. Operation sheets showing the actual order of work to be done are next made to conform with the machinery indicated. Space for workmen, travel of parts, direction of progress, stock control, reversals, new material supply, rejects — all these are discussed and studied until all are satisfied that for the present the best way has been found. Tomorrow everyone knows it may be changed for another way. But it will be for a better one — a faster and an easier one.

With this as a basis a set-up is tried, and, if it works as well as the operation sheets predicted, its performance is only equal to the minimum expected of it; it should have done a little better. Actually most of the

operations I have checked from records show better results than were predicted. Of course there are exceptions, but they don't remain exceptions very long. The weak link soon shows and is removed. Defects in assembly and process lines are self-revealing. Let one part get behind or ahead in production and a pile of dumped parts in a narrow aisle soon makes the proverbial molehill look like a mountain.

And yet that does not mean that such a type of production is a hasty one, or slipshod. In fact it is just the opposite. There is ample time for each operation to be done well. If you will take your watch and check operation after operation, you will find that the workmen have more than ample time — some really twice as much as they need to do the job. The gait of the line may be intense at some points. It may look to the casual observer like a swift pace, but to the man who knows the work and the actual time it takes a skilled man — and all Ford men are superskilled when it comes to their special jobs — it is more than ample for good workmanship. Parts, however, must have been made right; they must fit the first time. "No go" means no good in the assembly line — but there are few rejections. So faults in a process line soon iron themselves out or the process is changed or divided so that the defects disappear.

The mechanical and automatic process of production

Contrasted with two other shops which I have just visited, shops which make similar parts but in what is considered a more leisurely way — that is, not by mass production — I must say that Ford production, for all its seeming speed, strikes one as the more logical, more sensible way to make a mechanical product containing several thousand parts and wherein all are expected to fit the function in a carefully designed manner. The leisurely way may be all right for an art product, but nothing is gained by making a strictly mechanical product in the old-fashioned hand-made way in this day of precise gauges, electrically controlled heat-treatment furnaces, accurate machine-tool design and manufacture, automatic recorders, selective inspection working to tool-room limits and standards, when all is checked and dictated by skilled technicians. Little is left for the workman to do except to work to specification and standards.

Because the entire Ford system of production is based upon a timed

continuous-process plan, even the detail assembly lines must be made to yield their output at a rate sufficient to feed the other and larger branches of the moving stream. This makes the planning all the more complicated and difficult. Too fast production here means overstock to be piled in the aisle or trucked away until ready for use; if the rate is too slow the major line is held up on account of shortages. Neither can happen for long in the Ford industries without showing up badly for both the workman and the dispatching department.

Ford planning is purposely kept within narrow limits, for it is good for the efficiency of the plant and also acts as a sort of automatic and visual safety signal. In most cases it shows where the trouble is and what needs to be done to remove it. Of course, when the process is new or experimental, nobody knows just what is best; but a good visual example of what not to do is often a start toward the solution of the problem.

Speeds in assembly are deceptive unless checked by standards; and even then, newer ways may upset former ones. For example, sometimes a man cannot walk or bend over and do a thing as quickly as he could do the same thing standing erect. Then someone gets the idea of letting the man ride on the platform while he does it, and the problem is solved. Or perhaps a punch press set at an angle by the machine-tool manufacturer, because he says the blanks will fall out automatically on the other side after each operation, is not handling as many parts as it should, or the men may tire too quickly. The press is brought back to vertical, a rake designed for removing the work, the man stands erect, the job is easy and the output is increased.

Back behind it all is the master plan of production originating in the head office. This nerve center of the Ford industries is now located in the new Ford administration building recently completed on Schaeffer Road in Fordson. Here a master record is kept for confidential daily examination — the complete, condensed condition of every phase of production activities. Here is evolved a clear record and comparison of past, present and future planning. Here the general policy of production changes is dictated, buildings are rearranged, process lines are shifted, material shortages of unusual character are overcome, and the major problems of production management are solved. . . .

V. THE ORTHODOX SYSTEM OF DISTRIBUTION[1]

By A. W. Shaw

President, Shaw & Co.; Author and Publisher of Works on Business

The middleman is a by-product of a complex industrial organization. . . .

In the more primitive barter economy, the producer deals directly with the consumer, and middlemen take no part in the transaction. In the medieval period, as the handicrafts become specialized occupations under a town-market regime, the producer is a retailer and sells directly to the consumers. Then as the market widens, a division of labor is necessary and the merchant appears as an organizer of the market. The handicraftsman becomes a steady worker, no longer concerning himself with selling. He becomes in many cases practically an employee of the merchant-retailer who provides the stock and bears the risk. The merchant takes the finished goods from the producer and sells them to the consumer.

Steadily the market widens until we find a national market. The merchant is no longer a single intermediary between the producer and the consumer. The merchant who takes the goods from the producer disposes of them to retail merchants who in turn distribute them to the consumer. After a long period, we find the producers gradually stengthening their financial position, and freeing themselves from the control of a single merchant. They become merchant-producers. They assume the burden of production, and dispose of the product to various wholesalers who in turn sell to retailers, and they to the consumers. As a world market appears, the producer disposes of a part of his product to the export merchant.

In the early days of the factory system, we find that the producers have lost their character as merchants and are devoting themselves to

[1] A. W. Shaw, *Some problems in market distribution*, Harvard University Press, 1915, pages 69–76. Reprinted by permission of the author and the publisher.

the problems of production. The pressure on production has continued and, with the increasing intricacy of industry, producers have found it necessary to concentrate their attention on production. The selling agent appears as a link in the chain of distribution to relieve the producer of the task of selling his product. The selling agent undertakes to sell the entire output of the producer. He distributes it among wholesalers, who in turn distribute it to retailers, and the retailers to the consuming public.

This may be termed the orthodox type in distribution, a type almost universal in the early decades of the nineteenth century, and still common as in the textile industry in New England.

Just as the long period of development from a system of barter economy to the early decades of the factory system showed a continuous tendency for increase in the number of middlemen intervening between the producer and the consumer, so recent years have sown a growing tendency to decrease the number of successive steps in distribution. The tendency is apparent in nearly every industry and has been clearly marked in recent years.

Under the orthodox type of distribution, with numerous middlemen intervening between the producer and the consumer, the producer's position is not an advantageous one. The fixed charges under which he operates make it almost imperative that he operate continuously. The outlet for his goods, however, is controlled by middlemen. Hence the middleman is able to exert pressure upon the producer and force a narrowing of his margin of profit. It was on account of this pressure and in order to free themselves from it that the stronger producers (merchant-producers now) sought to find ways of going around the middlemen and establishing more direct contacts with consumers.

. . . By the use of salesmen going directly to the wholesaler and by advertising directed to the retailer, the producer has displaced the selling agent in many cases. Sometimes the advertising is directed not only to the retailers but also to the wholesalers. To strengthen his position still further, the producer will often use advertising directed to the consumer to build up a demand for his product. This involves the development of a product differentiated by trade-mark, brand, or trade name. When the producer thus directly builds up a demand among consumers, he

often takes the further step of sending his salesmen to the retailer, thus omitting the wholesaler entirely from his system of distribution.

The most extreme step in the process is the complete elimination of middlemen, and the sale direct from the merchant-producer to the consumer, either by advertising alone or by salesmen supplemented by advertising. Manufacturers of specialties have largely adopted this scheme of distribution, and the enormous growth of the mail-order business in recent years gives evidence that in some lines of distribution apparently there are economies in this system.

The tendency to decrease the number of middlemen is one of the most characteristic features of modern distribution. It promises to show much greater development in the future if present economic conditions substantially continue. The attempts of associations of retailers to check the growth of direct selling have thus far not been successful. In their desire to force the manufacturer to dispose of his product through regular trade channels they have at times taken concerted action to discourage direct sales. But our national and state laws prohibiting combinations in restraint of trade prevent effective agreements of this sort. And the advantages of direct selling in some lines render the producer willing to incur the disfavor of the trade.

It should be noted, however, that changed conditions might give the middleman increased importance. Suppose, for instance, that the protective tariff system of the United States were to be swept away and free trade instituted. The middleman could then draw upon the foreign producer for supplies of unbranded staple goods, which might serve to increase his importance as a link in our system of distribution. While this would perhaps tend to increase the number of successive middlemen in some lines, it is probable that when the foreign producer in turn was subjected to pressure by the middleman, he, too, would tend to go around him and deal directly with the consumer.

VI. MARKETING FUNCTIONS AND MERCANTILE ORGANIZATION[1]

By L. D. H. Weld

Member, The H. K. McCann Co. (Advertising), and Author of Various Works on Marketing

The services that must be performed in getting commodities from producer to consumer are usually called the "functions of middlemen"; in the title of this paper they are referred to as "marketing functions" because they are not always performed by middlemen but often to a greater or less extent by the producers themselves. When a manufacturer performs practically all of them, as, for example, when he sells through his own retail stores, it might be said that he is his own middleman; but the term "middleman" commonly means an independent merchant, rather than a part of the manufacturer's selling organization. It is therefore helpful to think of "marketing functions," rather than "the functions of middlemen," because these functions are not necessarily performed by what we ordinarily term "middlemen." It should also be noted that the final consumer generally performs part of the marketing functions.

One reason why many people believe that the cost of marketing might be reduced by the "elimination of middlemen" is their failure to realize that this does not mean the elimination of marketing functions — which still have to be performed. Furthermore, many who do realize that there are functions to be performed, do not appreciate their complexity, or the difficulty and expense involved in performing them. Therefore, a classification of marketing functions is absolutely fundamental to a study of and an understanding of the marketing machinery. Although these functions have been described to a certain extent by other writers,[2] it

[1] *American Economic Review*, vol. VII, no. 2, June, 1917 pages 306–316. Reprinted by permission of the author and the publisher.

[2] The writer wishes especially to acknowledge the help derived from A. W. Shaw's *Some problems in market distribution.* The reader will recognize frequent indebtedness to this source.

seems worth while not only to reach as fundamental and significant a classification as possible, but to describe them in a way that will couple them up with the actual organization of the marketing process. Such is the object of this paper.

The services performed in the marketing process, including practically every item in the detailed expense account of a merchant or of the selling organization of a manufacturer, can be classified under one of the following heads: (1) assembling; (2) storing; (3) the assumption of risks; (4) financing; (5) rearrangement; (6) selling; and (7) transportation. The only important exception to this classification is the expense connected with the accounting and office management, or what Shaw calls "the facilitating activities" of a business. But these are purely incidental to the primary functions enumerated above, and may properly be considered as assignable to, or incurred in connection with, their performance.

Assembling

When communities were self-sufficing, there was no need of collecting or gathering commodities from distant places. But with the development of territorial specialization both in agriculture and in manufacturing, the assembling of commodities from various places became a more or less difficult function to perform. The term "assembling," as used here, does not mean the actual physical transportation of commodities from one place to another, but rather the seeking out of sources, the making of business connections whereby commodities may be bought, and the study of market conditions so that they may be bought at the lowest price possible.

Assembling, therefore, involves all the services connected with *buying*. Many wholesale houses assemble goods from different parts of the country — even from all corners of the earth. They have their specialized buyers, who not only go to trade and manufacturing centers to buy goods, but who have to make a constant and continuous study of market conditions, sources of products, qualities, grades, styles, etc. Many large houses maintain permanent buying offices in market centers, as, for example, the dry-goods wholesalers of Chicago, who maintain buying offices in New York. It is a common practice for wholesalers and even

large retailers to send buyers abroad, and some, as Marshall Field and Company, even maintain permanent buying offices in several foreign cities. But the assembling from foreign countries is largely performed by a specialized group of merchants known as importers.

Sometimes the buying function is so difficult and expensive to perform that jobbers employ independent purchasing agents in distant markets, who buy in larger lots than individual jobbers can handle, who have a more expert knowledge of market conditions and prices, and who keep their clients informed from week to week on these matters. This is common in the hardware trade. Department stores do not rely on jobbers to assemble goods for them. They buy largely from manufacturers, which involves sending buyers to eastern markets; and some of the largest stores, especially in the East, maintain permanent buying headquarters in New York. But the majority of department stores cannot afford such expensive buying organizations, and although they send their buyers to New York, they employ either "resident buyers" or their own coöperative buying syndicates to keep them in touch with market conditions, tell them where they can buy to best advantage, execute "fill-in" orders, and to provide desk space for their buyers when they are visiting New York.

Not many years ago, it was the practice of country merchants to visit large cities perhaps twice a year to order a sufficient supply of goods for the season. This was a cumbersome and costly method of assembling; it involved loss of time, poor selection of goods, purchasing too large a stock at a time, and unsatisfactory credit conditions. The assembling function for country merchants is now taken over very largely by jobbers.

Many other examples might be given of the importance and difficulties connected with assembling. It is one of the principal functions of wholesale produce dealers and commission merchants, who send solicitors into the producing regions to make business connections, who assemble first from one part of the country and then from another as crops mature in different climates, and who make a continuous study of crop and weather conditions. Brokers often help in the assembling function, in connection with both agricultural and manufactured products, although they more commonly represent the seller than the buyer.

Storing

Storing, in its broad sense, means the holding of stocks of goods at convenient points. It involves expense for warehouse or storage fees, store space, and interest on capital employed. Producers have to perform the storage function to a certain extent, but they shift it as much as possible to middlemen. Manufacturers prefer to manufacture "on order," so that they may deliver the finished goods as fast as they are turned out; but many have to manufacture "for stock," thereby keeping capital tied up in finished goods on hand. When manufacturers sell direct to retail stores, or to consumers through their own retail stores, they have to keep a large stock of finished goods on hand, not only at factory, but often at convenient places throughout the country, thus assuming the expense of performing the storing function, instead of shifting it to middlemen.

Retailers perform this function by keeping the shelves of their stores filled with goods. The tendency is for middlemen to reduce it as much as possible by purchasing goods in small quantities and very frequently, because small stock in proportion to sales means faster turnover and larger net profits. This tendency is especially noticeable among retailers, who shift the storing expense as much as possible to jobbers. Jobbers, in turn, always have warehouses with complete stocks, and the fact that retailers are buying in smaller and smaller quantities, but more frequently, accounts largely for the development of small jobbing centers, as in the grocery trade, and for the establishment of branch houses by large jobbers, as in the hardware trade. In other words, the jobber needs to be as near the retailer as possible, so as to supply his wants with a minimum of delay. The jobber also desires to order from the manufacturer as little as possible at a time, and this has the tendency of forcing manufacturers to carry a stock of finished goods. About the only middlemen who perform practically no storage functions are brokers, manufacturers' agents, and purchasing agents.

The storing function is so difficult and expensive to perform in some cases that it is taken over by a specializing set of warehousemen. General warehouses are found in all large cities, and in them all conceivable commodities are held. A sugar refiner on the Atlantic Coast, for example, needs to keep supplies of sugar on hand at large distributing

centers throughout the country, and he has the choice of building and maintaining his own warehouses or renting space in public warehouses. He finds it cheaper to pursue the latter course. The large meat-packers, on the other hand, find it to their advantage to maintain their own warehouses, partly because they require a specialized service and equipment not furnished by ordinary warehouses, and partly because they do business in large volume. Agricultural products, which are seasonal in character, demand special forms of storage facilities, usually furnished by independent warehousemen. Cases in point are grain elevators, cotton warehouses, and tobacco warehouses. And when the element of preservation enters in, cold storage houses are required. The storage function has to be performed all along the line, from producer to consumer. Even the consumer, when he buys goods in large quantities, performs part of the marketing function of storage; but the tendency has been for the consumer to shift this function back more and more to middlemen.

The assumption of risks

Inasmuch as commission merchants, brokers, and agents do not take title to goods, they assume very few of the merchandising risks; but practically every other middleman, as well as the manufacturer, especially when he produces for stock, has to consider the element of risk. The principal kinds of merchandising risks may be enumerated as follows: (1) price fluctuation, (2) destruction by fire, (3) deterioration in quality, (4) style changes, and (5) financial risks.

Perhaps the most important risk is that of price fluctuation; but its importance varies for different commodities. Branded and advertised articles are relatively stable in price, though during war times they too suffer somewhat from price changes. The risk of price fluctuation is greater to wholesalers than to retailers, because of the smaller margins on which the former carry on business. Many articles handled by wholesale grocers, such as flour and sugar, fluctuate in price very frequently and are handled on extremely small margins, and the merchandising risk accordingly becomes great. When one buys or sells with the idea of making a profit from mere price fluctuations, he becomes a speculator. In this sense wholesale grocers often speculate in flour and sugar and

some other commodities, and oftentimes a large part of their net profits (or losses) is due to this feature of their activities. In the case of a few raw products — wheat, corn, oats, flaxseed, cotton, sugar, and coffee — price changes are frequent, merchandising risks are great, and speculation becomes an important factor. Much of the merchandising risk is shifted through the hedging process to professional speculators, a specialized class of risk-assumers.

The risk of destruction by fire is largely shifted to insurance companies. Deterioration in quality is a danger affecting principally perishable articles, but to some extent is also a risk factor for general merchandise, which may become shopworn. Many articles need special facilities for their handling — warm rooms, dry rooms, refrigerated rooms, etc.; and the storage houses, as well as the railroads, help in the prevention of deterioration. Style changes in manufactured goods are analogous to perishability of farm products. They constitute an important risk factor in men's and women's wear, especially the latter; and the frequency of style changes appears to be increasing, as exemplified recently in eyeglasses and women's footwear. Financial risk appears in loss from uncollectible accounts, but may be largely overcome by the maintenance of credit departments. Financial risk is also involved in the other forms of financing described below.

Financing

As explained by Shaw, middlemen were formerly merchandise bankers. This functions has been largely taken over by banks, which in this sense are middlemen of a specialized kind. And yet we should not lose sight of the fact that middlemen still perform extremely important financing functions, and in a variety of ways. Perhaps the most important is the granting of credit — retailers to consumers, jobbers to retailers, and sometimes manufacturers to jobbers. In many cases, however, the manufacturer has to be financed: as in the cotton trade, where commission houses make advances or endorse the mill's paper; or in the silk trade, where raw silk dealers furnish the raw material on six months' time. Furthermore, manufacturers are commonly financed by being allowed to draw drafts on day of shipment, a method also common in financing shippers of farm products.

The financing function involves the tying up of capital, with resulting interest charges, also a line of credit with banks and the expenses connected with accounts and collections. On the whole, the brunt of the financing burden is borne by the wholesale trades, or sometimes by commission merchants. Retailers and consumers are generally weak so far as accumulation of capital is concerned, and on the other end of the marketing chain, manufacturers generally find it difficult to finance their own undertakings; so that the financing function of the wholesale intermediaries commonly extends in both directions. This is especially true in the marketing of farm products. Furthermore, the wholesalers, because they are located in trade centers and have quick assets, are the ones who are in the best position to obtain credit from banks.

Rearrangement

Rearrangement of commodities involves sorting, grading, breaking up of large quantities into small units, packing, etc. This is one of the principal functions performed by many merchants in raw materials. Wool dealers, for example, in addition to their assembling and financing functions, are practically indispensable to manufacturers on account of the fact that they are important as graders and classifiers, and stand ready to furnish the particular quality of wool desired at any time. In the farm-products trade, sorting and grading are of supreme importance; furthermore, these commodities reach large cities in carloads, and have to be split up into small quantities, according to the demands of individual retailers. This function is important even in the marketing of standardized and non-perishable commodities; wholesalers often receive goods in bulk, and have to weigh them out and package them. Goods that are already packaged when they reach wholesalers are usually put up in cases or cartons, but owing to the tendency among retailers to buy in smaller quantities, cases have to be broken open, goods in one third or one sixth of a dozen lots collected from the different cases, and repacked for shipment. This is becoming a serious problem in the drug trade, for example, where each retailer has to handle such a large variety of proprietary medicines. A wholesale grocer recently told the writer that his "broken package room" was "the most expensive room in the building." Some wholesalers charge their retail customers higher prices for broken-

package or broken-case lots. Even retailers have the function of rearrangement to perform to a certain extent. They have to weigh out sugar, coffee, nails, wire, etc., and measure and cut cloth; then they have to wrap for presentation to customers. Thus it is seen that breaking up large quantities into smaller units, sorting out according to quality, and packing and wrapping are functions that have to be performed by middlemen all along the line.

Selling

Selling is the most important of the marketing functions, as well as the most costly one to perform. Salaries of salesmen (plus traveling expenses in many cases) constitute generally the most important single item in a merchant's expense account. Selling involves both creating a demand for the goods and getting the goods into the hands of the purchaser. Though both of these phases of selling are performed largely by personal salesmen, demand creation is being accomplished more and more by means of advertising. Advertising is used either because it is the only possible way of creating a large consumer demand, or because it is the cheapest way of arousing such a demand. When a manufacturer advertises, he turns over the actual work of preparing copy, selecting mediums, etc., to another functional specialist — the advertising agency.

It is still necessary for most manufacturers, jobbers, and retailers to employ personal salesmen, but because of the great expense attached to this method, it is only natural that many of the important recent attempts to reduce merchandising costs should have been along the line of eliminating salesmen's salaries as much as possible. The mail-order houses, both wholesale and retail, do away with salesmen altogether; local buying syndicates among retail druggists effect their principal saving by substituting the telephone for salesmen; the slot-machine does away with salesmen, and the slot-machine type of retail store, like the Horn and Hardart restaurants and the "all-package" grocery stores, seems to be gaining ground.

The employment of salesmen involves the maintenance of a sales organization (sometimes an extensive one), the determination of the best way to pay salesmen, their selection and training, the control of their

traveling expenses, the use of samples, etc., all of which means expense to the manufacturer or middlemen performing the selling function.

Transportation

As explained by Shaw, merchandise middlemen formerly attended to the actual carriage of goods from one place to another more than they do now; but this function has been largely taken over by railroads and other transportation agencies that are specialized middlemen in this field. Transportation, however, is still an important function of merchants. Wholesalers and retailers frequently use their own trucks for hauling goods from freight stations to their stores, though more commonly drayage companies are employed.

The principal transportation function still performed by merchandise middlemen is that of delivering goods from store to customer. Delivery expenses form a considerable item for most jobbers and retailers, as well as for manufacturers who sell direct to the retail trade. For such middlemen as milk distributors, the delivery function becomes an exceedingly expensive one to perform. Some department stores and grocery stores carry their delivery services to an almost absurd degree — a situation brought about by the unreasonable demands of shoppers and by keen competition among the stores for business.

There appears to be a tendency in some directions to curtail delivery expense by asking customers to take goods home with them, by making only a certain number of deliveries per day, or even per week, and by giving a special discount to customers who carry goods home. Many stores save by making no deliveries at all. The carriage of goods from store to consumer's residence has to be performed, and it is simply a question whether the consumer is willing to perform this function, or pay to have it performed for him. The five-and-ten-cent stores deliver only purchases exceeding a certain minimum value. In some cases retail stores located in the same city turn over the delivery function to specialized delivery companies, or even have their own coöperative delivery companies, thus eliminating wastes due to duplication of equipment, and to covering and re-covering of the same territory.

As already stated, a clear conception of the marketing functions is fundamental to a proper understanding of the mercantile structure.

The splitting up of the marketing process among successive middlemen is merely a case of specialization in marketing functions. The organization of any trade is characterized by the extent to which the "manufacturing functions" are specialized among several independent plants, or are integrated or consolidated in one plant or under one ownership. The tendency in modern merchandising appears to be for the manufacturer to assume more and more of the marketing functions, and the problem of how far he should go in this matter is one that is bothering many a manufacturer today. In some cases, the manufacturer performs practically none of the marketing functions; he employs a commission merchant (as in the textile trade), a "manufacturer's agent" (as in the hardware trade), or a broker (as in the sugar trade). He then needs no sales organization, even for reaching jobbers. The agency that he employs becomes the equivalent of the manufacturer's selling organization; and when a manufacturer uses this method it is for the simple reason that such an agency can perform the marketing functions more cheaply than he himself can perform them, which is especially true of small manufacturers who make a single product or small variety of products. The selling agent effects his principal economies by handling the outputs of several mills, and thereby reducing the selling cost per unit of goods sold.

Most manufacturers employ no intermediary in reaching jobbers, but go to them direct. This requires the manufacturer to maintain a sales organization, to employ salesmen, to assume merchandising risks, etc. In the textile trades, the American Woolen Company and some of the largest cotton mills "sell direct," which means that they sell direct to jobbers and the "cutting-up trade," rather than direct to retailers. Selling direct to jobbers usually requires relatively few salesmen, for goods are sold in large units, and the manufacturer has relatively few customers, all of whom are "good pay." It enables the manufacturer to manufacture largely "on order" rather than "for stock," hence reducing the storage function.

Other manufacturers assume still more of the marketing functions and "do their own jobbing," thereby selling direct to the retail trade. Such an undertaking demands an extensive and expensive selling organization, a very large number of salesmen (to perform the selling

function), frequently the establishment of branch offices dealing with and giving credit to thousands of retailers who are "slow pay" (financing and risk functions), the manufacture of goods for stock (storage function), and sometimes the delivery of goods to retailers (as is done by the National Biscuit Company). Well may a manufacturer hesitate before he undertakes to develop the organization and assume the expense of performing these functions. Many a manufacturer has thought it over, and decided that the jobber can do these things for him more cheaply than he can do them himself.

Although the writer has no intention of discussing in this place the reasons for the tendency of manufacturers in some lines to assume these marketing functions, it should perhaps be noted that other considerations than mere cheapness or economy in marketing are often the controlling motives — such as better pushing of advertised goods, control of resale prices, etc. In fact, it is a question whether goods marketed direct to retailers by manufacturers are done so any more *cheaply* than if they were sent through the hands of jobbers; probably the contrary is true in many instances. At least, when goods are marketed in this way, they usually do not reach retailers at any lower price than when they go through jobbers — except in the case of very large retailers who buy in "jobbing quantities."

It is needless to carry this analysis further and to show how the manufacturer assumes even more of the marketing functions when he sells to consumers through his own retail stores. What has already been said is perhaps rather obvious, but it illustrates the value of thinking of these questions of commercial organization in terms of the marketing functions. It may not be amiss to call attention to the fact that while the manufacturer has tended to assume more of these functions, the consumer, on the other hand, has tended to perform fewer of them. He — or rather, she — goes to market for foodstuffs less frequently and dislikes to carry goods home with her. Furthermore, she either dislikes or is unable to perform the storing function, and hence buys supplies from day to day. When she goes shopping for clothing and household goods, she is performing the "assembling" function, but the department store has helped her out in this particular by "assembling" all manner of goods under one roof.

VII. THE FORCES BEHIND MODERN MARKET STRUCTURES [1]

By Leon C. Marshall
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We know that by 1750 English economic development had reached a stage which made possible that sudden change which we now call the Industrial Revolution. Governmental stability had created an environment in which political uncertainties, with their attendant hampering of economic development, were at a minimum; the beginnings of modern experimental science had laid the foundations for the development of modern technological industry; the expansion of the market (which had been really quite considerable in the period from 1300 to 1750) had developed and had tested commercial devices and structures; financial institutions had reached the stage where they could make significant contributions to the capital formation necessary under a regime of machine industry; risk-bearing institutions, notably the exchanges and insurance companies, were ready to play their part; in brief, the stage had been set for the entrance of the new economic order.

The outer habiliments of the new order were machine industry and indirect costs; the inner spirit was a complex of private property, *laissez faire* competition, the gain spirit, and customary survivals. It quickly demonstrated its powers for increased productivity of economic goods; so quickly, indeed, that industry after industry and nation after nation welcomed it and gave it dominance. It is our present purpose to see what this new order meant so far as marketing structures are concerned.

We shall be able to see this more clearly if we divide the period since 1750 into two periods. The first, running from 1750 to 1880, may be called the period of the emphasis upon production and the all but universal acceptance of the orthodox system of distribution, or "marketing through the producer to the wholesaler to the retailer to the consumer."

[1] Leon C. Marshall, *Business administration*, University of Chicago Press, 1921, pages 256–262. Reprinted by permission of the University of Chicago Press.

This was the first phase of the revolution. The second phase (1880–) is still with us. It is marked by increased emphasis upon production *at lower cost* and by the development of many other systems of distribution (such as direct selling, chain stores, mail-order houses, etc.) alongside the orthodox system. Of course, the dates used in this statement are arbitrary. The actual dates varied from industry to industry and from nation to nation and were in no case single years; they were always transition periods. So also the characterization of the periods is arbitrary, being designed to suit our present needs. These commercial and industrial changes are in fact only a part of the full story. To tell the full story would be to tell of no inconsiderable portion of human endeavor and aspirations of the last two centuries.

Speaking broadly, the outstanding feature of the first period, for our purposes, is the fact that the market was expanding more rapidly than productive power was increasing. This statement is, at first thought, a bit surprising, for we think, properly enough, of this period as the one of the coming in of machine industry; as one of a tremendous increase in producing capacity. This is entirely true, but it is also true that the market increased even more.

This rapid increase of the market was in part due to technological industry itself. In the form of the canal, the railroad, the telegraph, and the telephone, technology opened markets in an astounding fashion. Of course, the way had been prepared. The preceding period had been one of colonization by the European nations. This colonization had opened the edges of the continents of North America, South America, Africa, and Australia and had made possible the political organizations under whose auspices modern economic communities could arise and technological industry could develop the markets for its own products. Then, too, the spread of printing and of formal education contributed to a reaching for a higher standard of living at the very time when increased production made measurably possible the attainment of the higher standard. Not even the most rapid increase of population the world has known served to check the rise of this standard. It served mainly to expand still more the market for goods.

In such a situation the typical producer of goods for individual consumption found himself in a position which called for less worry over

marketing problems than over production problems. The market seemed ready to absorb output at almost any reasonable cost, and if perchance one market was lost, another rose to take its place. Under such circumstances it was natural for two very interesting sets of institutions to be emphasized. Upon the one hand the producer, not greatly disturbed over any possible loss of control of his market, was willing to delegate marketing functions to the jobber or wholesaler. Presumably the jobber, eager to get goods which he could market, would "play fair"; if he did not, there were other jobbers eager for the goods. The producer, reasonably sure of a market in either event, and still somewhat under the influence of the traditions of simpler industry when overhead costs were not such a burden as they are today, did not trouble himself much over the possibility that he might have to change "his line" because of lack of market, and accordingly acquiesced and indeed coöperated in establishing the orthodox system of distribution. Of course, few if any producers reasoned it out in such terms. They simply drifted with the tide. We today can sense the direction of that drift.

The other interesting set of institutions — the schools of technology — arose out of the demand for ever increasing producing capacity and out of the background of the physical sciences. We can now see that it was no accidental matter that such schools arose in this period. They were an answer to society's demand, voiced through prices established in the mechanism of the market, for more and more products.

With the opening of the commercial revolution, as the second phase of the Industrial Revolution is sometimes called, there was a shifting of forces. Again speaking broadly, the outstanding feature of this second period is the fact that productive power is expanding more rapidly than the market. This reversal of currents is partly the result of the developments of technology in the earlier period. It is partly the result of the fact that the more responsive markets have been fairly well exploited. It is partly due to a checking of the rate of increase of population. Doubtless there are other causes.

Interestingly enough, this checking of the rate of increase of the market has not meant any diminution in the emphasis upon production. Quite the contrary. The presence of indirect costs in modern industry makes any falling off in output a thing to be dreaded; any increase in output is

a thing to be coveted. The producer is therefore in a strange situation. He wishes to increase output at the very time when the market is not expanding rapidly. In a sense he is forced to fight against the drift of events, and he uses any weapons upon which he can lay his hands. For one thing, he seeks to get and to hold his market by national advertising, by monopoly, by price maintenance, by establishing his own branches, by mail selling direct to consumer — by hook and by crook. Here we have the outstanding reason for the building up of many systems of distribution parallel to the orthodox system — and sometimes supplanting it. For another thing, he strives to reduce his costs, often as a means of coaxing the market to respond. Here we catch a glimpse of the forces behind cost accounting, scientific management, and the increased emphasis upon schools of technology. For another thing, he wheedles society into establishing schools of commerce, and through them, through government bureaus, and through private researches he studies ways to expand the market. For still another thing, he helps to influence nations to embark upon an "imperialistic" policy which has meant a new emphasis upon colonies and has contributed not a little to the causes of our Great War.

Doubtless we are still too near the events for us to have a well-balanced conception of the forces which have shaped and are shaping present-day marketing structures. We can, however, enumerate some of the major forces and can see, in the rough, how they are working.

1. The increase which has taken place in market area should be enumerated as a background condition — if not a force — which helps to explain modern market operations and structures. Upon the one hand the space area of the market has been greatly increased by improvements in such fields as transportation, communication, and administrative control; upon the other hand the time area has been increased by various devices ranging from refrigeration to the hedging operations of an organized exchange. These increases in area, taken with what might be called an increase in the depth of the market (greater demand and consuming power), have made necessary changes in market structures to meet the new conditions.

2. Next, we should list the change in the balance of many forces as a consequence of which "production is now outrunning the market."

This has been sufficiently discussed in the preceding pages. It helps to explain the origin of many devices for getting and keeping "a grip upon the consumer."

3. The increasing reliance upon the principle of specialization is another factor worthy of mention. In part, this reliance is a rational one. Specialization does make possible better quality and greater quantity of economic goods and is usually to be encouraged where the market is sufficient to justify it. It is quite possible that we carry our specialization beyond limits justified by reason. It matters little for purposes of our present discussion. The growing reliance upon specialization makes the environment a favorable one in which to launch new specialized devices in marketing.

The increasing specialization in producers' instruments (for this is also a feature of modern specialization), coupled with the tendency to large-scale production, plays its part in determining market structures. It is increasingly difficult to transfer specialized capital from one "line" to another without great loss. It is accordingly increasingly important to keep a grip upon the consumer so that this transfer may not be necessary. Marketing devices are therefore built up which will aid in holding the consumer.

4. Closely related to all this is the growing importance of indirect or overhead costs in industry. We have already seen that these costs make increased output a thing to be coveted. In a business where the major part of the total cost is overhead, a ten per cent change in the volume of the business may very well spell the difference between bankruptcy and very large profits. A steady volume of business is, furthermore, almost as important as an increasing volume. Small wonder that market devices to hold the consumer are emphasized in modern industry!

5. The growing dependence upon large-scale production should also be listed as a force which is shaping market structures. Goods are made to be marketed. Modern large-scale factory production, in and of itself, accordingly leads to increased attention to marketing, both in order to secure the large demand which will enable the increase of output and in order to secure the steady demand so essential to regular, economical production. Large-scale marketing is therefore quite likely to develop parallel to large-scale factory production. This tendency is accentuated

by certain economies which are possible in large-scale marketing, such as those connected with the more economical handling of the material, with better prices in large-scale operations, with better freight rates for large lots, with better research or investigating facilities, with economy of both routine and administrative labor, and with economy of capital. Possibly "the economy of large-scale production" is becoming something of a fetish. No matter. Our increasing faith in it, justified or not, helps to explain the scale of many of our marketing structures.

6. We should not fail to list the expansion of popular education. In 1800 the total number of days of formal schooling of the average American citizen was 82; in 1840 it was 208; in 1916 it was 1,180. If these data are taken as samples of what has been occurring in popular education it is readily seen how "selling by description" has come to be so widely used. As one example of a resultant market structure, notice that the mail-order house owes much to the spread of ability to read and write.

7. This leads naturally to our listing of the rising standard of living as a force which is shaping market structures. We say that "service marketing" is frequently more profitable than "price marketing." Why? It gets its appeal through the rising standard of living. Not a few of our market structures are shaped in recognition of this appeal.

8. The steady development of facilitating agencies, such as insurance, transport, advertising, finance and administrative-control devices, should not escape notice. Of course, they are results as well as causes, but they *are* causes. For example, modern massive retail trade is much indebted to the development of modern sound large-scale financial institutions.

9. Not least in importance is the growing tendency toward associative effort. Whereas the period prior to 1880 was one that put stress upon the *competition* of specialists, the present period is increasingly one of *association* of specialists, whether competing or non-competing. Sometimes this association results from a desire to reap the advantage of large-scale operations as ordinarily conceived; sometimes it results from the desire to reduce risks by combining them or by increasing information; sometimes it is only a vague "setting up of an impersonal device to cope with the impersonality of modern society"; sometimes it is a combining against a common foe, real or imaginary; sometimes other causes are operative. Whatever the causes, there is in men's minds today a strong

current setting in the direction of associative effort, and its importance should not be minimized when one is searching for the causes of present-day marketing structure.

10. Developing codes of business ethics and developing standards of other aspects of social control of business activities have played their part. Selling by description may again be cited in illustration. It is highly dependent both upon formal social control as reflected in law and upon informal social control as reflected in codes of business ethics.

By this time it has probably occurred to the reader that this catalogue of "market forces" is nothing but a citation of some quite "general forces" which are operating in our economic organization, with particular reference to the way they affect marketing considerations. So it is. But that is enough. Look back over the catalogue asking whether it helps to explain the emergence of the department store, or the chain store, or the mail-order house, or direct selling, or any other of the newer market structures. If it does, it has answered its purpose.

VIII. WHY THE CHAIN STORE?[1]

By Ralph W. Gwinn

Chains started at about the same time that mass production began, as might have been expected. However, their rate of growth was much slower. They depended wholly upon the speed with which buyers and managers, salesmen and saleswomen, could be trained and coördinated for group action. Capital was not as important here as it was in production. Neither was there much possibility of the use of machinery and mechanical technique as it was known to production. A new technique — not for uniting metals and mechanical power, but for relating and organizing human elements — had to be found before chains could be established on a sectional and national scale.

So this organization of human groups developed at a snail's pace, as compared with the rapid expansion of steam and electrical machinery in the marvels of modern production. By now all have adjusted themselves to the hardship involved in the change from the old hand-labor to the new factory system. There is, in general, a widespread appreciation of the higher scale of living which this evolution has made possible. Yet, strange as it may seem, not long ago the introduction of mechanical sheep-shearing enraged the hand shearers so that they poisoned thousands of sheep in their effort to resist the improved devices.

So the chain system, which is the device for mass distribution paralleling improved production, has still to be understood and its possibilities in the modern scheme of living appreciated. Mass production brought down materially the costs of food and clothing, but until the chains came we had no parallel mass distributing system. We lost in our uncoördinated, wasteful distribution outlets what we saved in mass production.

The factory has been accepted as good, but to some the chain system seems inimical to the best interests of the individual American as he is typified by the single-store merchant. Yet it follows that if the factory

[1] Adapted, by permission, from New York *Herald Tribune Magazine*, February 3, 1929.

system is good, then the chain system is just as desirable. It is, in fact, a necessary complement to the factory if all of the latter's advantages are to be realized by the public. Certain old-fashioned groups with new-fangled propaganda charge the chains with forcing thousands of retail merchants out of business annually. They would make it appear that chains threaten the very bulwarks of American society.

What do the contrary facts show? More than half of all retail merchants have always failed. That was true before the advent of the chain system and is true also today. Many have voluntarily paid up their debts and quit a business for which they were not trained at the start. Still others have gone through the bankruptcy courts. Chains are now being blamed because it is easier to lay the burden there than it is to think and state the fundamental reason for these unfortunate failures.

In 1914 there were 12,851 merchants who went into bankruptcy. They failed owing $165,865,000. There was very little chain-store competition then. At about the same rate of failure, in 1927 there were 16,082 merchants who went into bankruptcy owing $228,194,000 to their creditors. But even now the chains altogether do only about 15 per cent of the mercantile business. So they are scarcely to be held responsible for those failing in a territory where approximately 85 per cent of the business still is conducted by the independent merchant.

During the last twenty-seven years it is estimated that out of every thousand merchants who started in the mercantile business nine hundred have failed — a total of 90 per cent. One of the national chains, now operating over a thousand stores, doing business at the rate of $240,000,000 per year, has, during the same twenty-seven years, closed only twenty-three stores which have been failures in the same sense as the nine hundred stores mentioned above. This represents a total of failures for the chain of 2.3 per cent. During this twenty-seven-year period no bank, no landlord, no employee, no manufacturer, has lost one penny through failure of that chain to pay its debts. In one of the large food chain organizations, operating many thousands of stores, this same record has been maintained for approximately seventy years.

The chain distribution machine, like the production machine, is designed to work as closely as possible to 100 per cent capacity. It is bound to succeed if it keeps working toward that mark. A factory which is

busy only 50 per cent of the time would be discontinued as unprofitable, because factory accountants know month by month exactly what the business is showing. It is different in average single stores. Tens of thousands of them operate at less than 50 per cent capacity. Clerks are busy only half the time. A charge of 50 per cent for the cost of the rent, clerk hire, taxes, interest, executives' salaries, traveling salesmen's salaries and advertising is excessive, but, of course, it must be added to the sales price of every bit of food and clothing sold through the incompletely functioning store.

In a study completed in May, 1928, conducted by the United States Bureau of Census, it was found that in eleven cities 28 per cent of the concerns annually did less than $5,000 worth of business each, and that 18 per cent of them did between $5,000 and $10,000. It was found that 46 per cent of the total number of stores in operation in these eleven cities did only 5 per cent of the total business. In these same cities the chain units constituted only 15 per cent of the total number of stores, and their sales amounted to 28.7 per cent of the total volume. It is safe, therefore, to assert that there are at least twice as many retail outlets as are economically necessary. This refutes the widespread fallacy that the prosperity of a community is determined by the number of retail merchants that it supports.

In the face of these figures it is impossible for retailers to bask in the illusion that they create wealth in the broadest sense. Their chief function is to bring down costs and eliminate waste so as to leave the wealth with those who create it. The fundamental wealth of every community is created by products from the farms, factories, mines, forests and fisheries. The secret of good merchandising is to take as little of that as possible.

So these losses and wastes in distribution prevent us from boasting very much of the savings made in production. We are still in that amazing position of overproducing food and clothing, while, because of the excessive costs of our incompetent system of distribution, great strata of society still are without adequate food and clothing, even in this period of prosperity. Mr. Hoover's engineering committee estimated that $8,000,000,000 is the annual bill for waste in distribution of all commodities. The chain store is designed substantially to reduce that figure.

A few examples of savings are the following:

1. By accounting machinery and the concentration of operations the books of three stores are kept by one man.

2. By scientific analysis of all freight routes (there are some 26,000 in the United States) a carload or a hundred-pound box of merchandise is shipped by the most economical routes — sometimes by slow freight, sometimes by fast, sometimes by express, in full carload or parcel shipments, either by water or by rail — according to the best advantage. Oftentimes the difference in freight costs means the difference between a loss or a fairly substantial gain in handling many items of merchandise.

3. Advertising is a science. The expert advice of the best advertising counsel cannot be afforded by one average-size store, or even a hundred stores, but the cost of this expert counsel is infinitesimal when divided among a thousand stores.

4. Public confidence is possibly the most costly item to secure and keep in the merchandising business. Every new independent store must spend years building it. It is a prerequisite. Almost every time a new store is opened in a national chain, 50 per cent or more of the first customers of that new store will have accepted it as their own because they have been satisfied customers at other branches of that same chain.

A majority of the other customers will have a favorable impression of, or even a confidence in, the merchandise and character of the new store's service, through reports from others, through general reading and through advertising. This is a great economy to the merchant in his new location. His profits begin at once. He is not compelled to build entirely from the bottom. It is a greater economy to the buying public. They are not compelled to learn by the trial and error process.

5. Education of the entire personnel of the chain is of equal importance with public confidence itself. Education is always first in any plan for saving or bringing down costs. A chain system is primarily an educational system. Its first job is to train and equip its associates for its present stores and for all its future stores. That requires from one to four years' training, depending on the position involved and the merchandise handled. All of the good and bad experiences of a thousand or more merchants are immediately available.

6. Employment and placement of men and women is coming to be

more and more of a science. So each chain tends to be an expert personnel and employment organization, whose chief function is to fit men and women to the work for which they are most suited. Instead of receiving theoretical vocational guidance in some school entirely separated from business, the modern personnel department of the chain store is an active, constant vocational counsel to thousands of men and women. Some chains have an amazingly small labor turnover. The value of happily, permanently located, trained associates in the chains cannot be estimated. It is the cornerstone of which economy of operation depends. Training explains why there are so few store failures under the chain personnel.

7. Experienced, scientific buying in the chains is another cornerstone at which waste is stopped. Neither the public nor many expert buyers can tell, within 25 per cent, the actual value of a piece of clothing material. This also applies to many foods. Buyers must learn by actual experience the most dependable manufacturers and producers. They must test their own buying by scientific analysis, chemical tests, and other devices. Neither one store nor even a hundred stores can afford this character of buying service. Five hundred or a thousand stores certainly can.

Buying is a matter of constant, not intermittent, attention to the producing markets. In order to keep from overstocking merchandise which may not move in the store, there should be continuous flow of merchandise weekly, or even daily, from factory to store. This means that two or more persons in each independent store must make buying their chief concern. Sixty expert buyers stationed constantly at the principal producing centers can do the buying for more than a thousand small department stores. The services of the traveling salesman for such stores are entirely eliminated. This is one example of labor saving in distribution which is comparable with the machine's labor saving in production.

8. Mass buying, often cited as the chief reason for the success of the chain system, works economies to both factory and stores because the demand of a thousand outlets for a given item are in one buyer's hands. He places that single order with the factory at the seasons of the year when the factory may be running low, or under other conditions as favorable as possible to the factory.

9. The general plan of compensating all classes of officers, executives,

managers and other employees by a plan of sharing in the profits of the stores and in many cases permitting reinvestment of these profits in the stock of the company as a whole, goes far toward the maintenance of continuity of service.

In one of the national chains approximately 80 per cent of all its common stock is owned by its active associates.

Certain objections are made to chains:

1. It is asserted by opponents of the chain system that its size and alleged impersonal character are destroying independent American individualism. There is no evidence that this individualism is jeopardized in the processes by which a man works closer and closer with his fellow men in coöperative effort in the particular kind of work he is best suited to do. Instead of being lost in the chain system, many are finding their greatest opportunities for education and usefulness.

2. The question is often asked, "What is to happen to the worker who is thrown out of employment if chains reduce the number of necessary stores?" Looking again at the chain merely as a new labor saving machine, we can apply the analogies of the changes wrought by machines in the past. A single shoe operator today does the work of ten old-time shoemakers, yet more work seems immediately to arise for those nine men who are no longer shoemakers. A single girl in a clothing factory does the work of twenty-five hand workers, yet the number of girls employed in the clothing industry is enormously increased.

What happened to the blacksmith when the automobile came? He immediately found three jobs where he had one before, and at higher wages. He found a better standard of living. The same change in employment is going on now with the iceman, who is being replaced by automatic refrigeration. Does any one suppose that the greater desirability of electric or gas refrigeration over the iceman's product will not in the long run materially improve even the position of the iceman?

3. Local banks in small towns sometimes assert that the chains are no asset to them as compared to the independent stores. They fail to appreciate that with the chains, banks are not asked to loan money on stocks of merchandise of uncertain value in stores of which 90 per cent fail. The store managers and other personnel present to the banks as security for loans the liquid, marketable capital stocks of their national

chain-store system instead of the less liquid merchandise stocks. The fundamental security for bank loans, namely, land and buildings occupied by regular and responsible rent-paying chains, is improved collateral.

A banker in a small city once criticized chains because they eliminated traveling salesmen, and because "money spent by commercial travelers is an important source of small city revenue." This was an astonishing proposition from a banker. It is obvious that every manufacturer and wholesaler fixes his selling price to retail merchants so as to cover the cost of traveling representatives' salaries and expenses. The local dealer, therefore, pays these expenses rather than someone residing away off in the nebulous distance.

Already thoughtful merchants, manufacturers and wholesalers in all lines of business are giving serious thought to the question of whether the newer and more scientific methods of distribution may not utilize the energies of the present-day traveling salesman to better advantage.

4. Chains have been criticized because it is alleged that they take all the money out of the town to absentee owners. Of course, the only possible economic excuse for chains is that they leave more money in town than any other distributing device by selling at lower prices. If they did not do that, their millions of customers would stop being patrons. Customers who pay very high prices for merchandise to a merchant who in turn is himself a liberal spender in town do not by this process receive back one additional cent toward the wealth of that town.

5. Many admit the economic advantages of chains, but accuse them of failing to support the local community chest, the chamber of commerce and other local community enterprises. What do the facts show? Entirely too few of all types of merchants give to community enterprises. In a typical Western town a survey in 1927 showed 258 separate grocery stores. Seventy-five of them were chain stores. Only twenty-eight out of the 258 were members of the chamber of commerce. The chains in this case were no more at fault than the non-chain stores. Yet it was found that in one chain 94 per cent of the stores were members of local chambers of commerce or civic betterment associations.

Chain stores realize that the problems of scientific giving to community enterprises, as well as the scientific administration of such undertakings,

demand solution. To the study of these problems and of their proper obligations in such situations, chain-store managers are giving careful and sympathetic attention. It may fairly be expected that enlightened action will grow out of experience and this study.

So the future usefulness of the chains can be measured by their past performance and the stability of their foundation; by the degree to which they may successfully organize to parallel mass production; by the possibilities still ahead for the improvement of mechanical devices for lowering distribution costs; by their ability to utilize expert scientific services at low costs a store unit; and by the extent of the field, 85 per cent of which is as yet unoccupied. Their future is assured if they can deliver equivalent or better goods and services at lower costs than the old type of store.

IX. WHOLESALER-RETAILER CHAINS [1]

By C. W. Steffler

Figures are available to show that retailing is a hazardous undertaking at best, and the competition furnished by the chains has served to make the already hard way of the independent harder. Naturally, many wholesalers and little retailers are up in arms against them in consequence. Legislation is pending in many states designed to curb their activities, seeking, in fact, to tax them out of existence. (In two states laws already passed have been declared unconstitutional.) Their competitors have succeeded in their attempt to have the chains "investigated," and the Federal Trade Commission has been called upon to supply definite and vital information, which, if obtained, will disclose the whole chain-store picture. Some of the principal accusations are: monopoly, rebates, price discrimination, putting individuals out of business, enslaving all as employees of large corporations and thus ultimately destroying personal initiative.

But while the government is at work to determine whether the chains indulge in unfair competition and whether they are in the public interest or inimical to it, even some of the wholesalers and retailers who are assailing the chains have begun to realize that a new distribution age has dawned, that scientific marketing has come to stay.

At first completely demoralized by the new competition, they now find that the chains enjoy no magic powers or advantages not open to all, and that by utilizing large-scale buying, operation, and merchandising they can compete on even terms. In their hour of need, wholesalers and retailers have turned to each other as the sources of greatest strength. Inasmuch as the wholesaler is at a geographic focal point in distribution, he is an integral part of all the retail merchandising with which he comes in contact, and he is also at the focal point of the territorial unit with respect to many manufacturers. Hence he is in a position to make use of the counsel of the manufacturer's highly paid marketing staff. He

[1] Adapted, by permission, from *World's Work*, January, 1929.

can benefit by the consumer experience of all his retail merchants. In this way he may become a source of inspiration, information, and interpretation for both manufacturer and retail merchant, providing that as a wholesaler he fully realizes this opportunity to increase the sales power of his retailers.

Of late the wholesaler has made astonishing advances in the method of giving service in such a way as to coördinate retailing and wholesaling into one effort toward better and more profitable merchandising. Thus a new phenomenon has appeared on the retail horizon — the voluntary coöperation of retail outlets centered around one or more wholesalers, merging their buying power and adopting common trade names and selling policies. Of these voluntary chains, the grocery trade has an outstanding example in the Independent Grocers' Alliance of America. Organized but two years ago, the I. G. A. now operates in 26 states, has 52 wholesale-grocer members, with warehouses in 114 distributing centers, and approximately 10,000 retail outlets.

A similar "chain" is being organized in the drug field, where McKesson & Robbins have merged 15 wholesalers who contact 55 per cent of the independent druggists in the country. Its combined sales force under the direct control of a single organization will comprise one of the largest selling organizations in the world and undoubtedly the largest in the United States serving retailers, Colgate-Palmolive-Peet excepted. This potential manufacturer-wholesaler-retailer combination, the very personification of mass merchandising, will enable the individual retailer to sell merchandise on the same terms and under the same conditions as those established by the chain systems and department stores. The consumer will therefore find in the neighborhood drug store, at the same price, merchandise extensively advertised by the chains. The same process is now visible in other lines, and this new coöperation promises to give the chains some real competition in the future. It is but another manifestation of mass distribution.

X. THE BUSINESS SIDE OF ADVERTISING [1]

By A. W. Shaw

President, Shaw & Co.; Author and Publisher of Works on Business

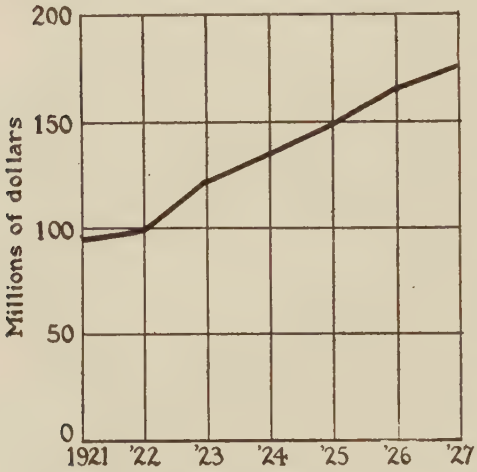
Advertising in the modern commercial sense is of comparatively recent development. Only in the middle of the nineteenth century did it commence to be of real importance in the commercial world. And as in its early extensive use the sale of proprietary medicines of doubtful value predominated, it was held at first in somewhat bad repute as an agency of demand creation. This notion lingers among many economists, who are satisfied casually to condemn advertising under the name "puffing," and who fail fairly to analyze its position as an agency in our scheme of distribution.

That there are evils and abuses in connection with advertising today may be frankly admitted. It is a new economic agency, and ignorance of its true function causes wasteful use. Moreover, it lends itself to conscious misuse. So the factory system carried with it evils which were far greater a century ago than today. And just as the factory system, by gathering together large bodies of workers, drew attention to evils which existed unnoticed under the domestic system of manufacture, so advertising tends to bring into the limelight of publicity certain evils which exist as well in sale through other channels. But these are rather undesirable and nonessential incidents than anything fundamental to the thing itself. The evils must be recognized and combated, but should not cloud the fact that advertising is today an element of tremendous importance in our economic organization. The steady and remarkable increase in advertising evidences its efficiency as a selling force. In the United States we are expending annually upon advertising, in its inclusive sense, not less than a billion dollars.[2] This is a cold economic fact which renders advertising worthy of serious analysis.

[1] A. W. Shaw, *Some problems in market distribution*, Harvard University Press, 1915, pages 90–96. Reprinted by permission of the author and the publisher. This statement, while not recent, is an accurate summary of the business aspects of advertising.

[2] In 1929 the National Bureau of Economic Research estimated these annual expenditures at $1,502,000,000. See *Recent economic changes*, page 402. — The Editor.

Advertising is a necessary consequence of sale by description. It has been pointed out that so long as the prevailing code of commercial ethics made sale in bulk the only practical method, the middleman was an indispensable selling agency. As business morals bettered and manufacturing methods improved so that a standardized product could be turned out, sale by sample appeared. Then it became possible for the producer to send his own salesmen with a sample to the prospective purchaser instead of being dependent solely upon the selling efforts of a middleman. And then, when sale by description appeared, with an even higher code and a higher level of general intelligence, a third selling agency became possible.



RECENT GROWTH OF EXPENDITURES FOR ADVERTISING IN MAGAZINES

Data source: National Bureau of Economic Research, *Recent economic changes*, page 409.

In advertising, just as in selling through salesmen, the producer communicates ideas about the goods to the prospective buyer to create in him a demand for the goods. While the purchaser insisted that he see the actual goods before purchasing, sale by advertising was impracticable. While he still required to be shown a sample of the goods, advertising was not in most cases feasible. But now that the general average of intelligence enables the prospective purchaser to gain an idea of the goods without seeing them and without seeing a sample, and now that the prevailing code of business ethics is such that the prospective buyer feels that he may rely upon the description given him, advertising becomes in many lines the most economical agency for the exercise of the selling function. Even where the actual sale is made by salesmen from sample, advertising is used as a supplementary agency to build up a demand which the salesman crystallizes. And sale by advertising alone may be

applied today even where the purchaser demands to see the goods before concluding the purchase, by sending the goods to him on approval.

Not only is the modern development of advertising dependent upon the possibility of sale by description, but it also depends upon the increasing differentiation of commodities by trade-marks, brands, and trade names. As before suggested, the producer cannot profitably convey to the consumer ideas about a certain food product which will build up a demand for that product, unless the consumer is able to identify the particular product when he goes into the grocery store to purchase it.

Advertising, then, may properly be regarded either as a substitute for middlemen and salesmen or as auxiliary to them in the exercise of the selling function. Owing to the rise of sale by description and the increasing differentiation of commodities, it tends to displace in whole or in part these other agencies in many lines of distribution because it is a more economical and efficient means of communicating ideas about the goods to the consumer.

Advertising, in the sense here used, may be defined as the communication to possible purchasers, by written or printed symbols, of ideas about the goods, designed to create a demand for the goods. In this broad sense it includes not only selling letters and circulars, but newspaper and periodical advertising, billboards, and window cards, electric signs, street-car advertising, catalogues and all the varied forms of modern commercial publicity. A rough classification is made between general and direct advertising. General advertising includes newspaper and magazine advertising, billboards, electric signs, street-car advertising and the like, aimed at the general public or some section of it. Direct advertising is used in reference to the sending of selling letters, circulars, or catalogues to the persons whose names appear on a mailing list and to influence whom the material sent is specially adapted. This classification is of some importance in discussing advertising as an agency in distribution.

We cannot here attempt an adequate discussion of modern advertising in its varied phases. And it is perhaps not necessary, so much is it today forced upon the attention of each of us. . . . A fair measure of the development of advertising in recent years is found in the rapid progress of inventions to facilitate advertising — photography, the half-tone

process of reproducing photographs and drawings, the three-color processes for more exact and convincing reproduction, the cheapening and perfecting of papers, inks, and printing.

Advertising is now being extended to fields where its use not many years ago was undreamed of. Ten years ago an advertising man would have said it was impractical to advertise papers; today enormous sums are expended on general advertising of papers for writing and printing. Advertising is even used today in fields other than commercial distribution. . . . And advertising by the railroads to secure passenger and freight traffic has reached enormous proportions.

It is necessary to include in this hasty and incomplete analysis of advertising as an agency in distribution a reference to the character of the demand aroused by advertising. Advertising may be said to build up three general classes of demand: (1) expressed conscious demand, (2) unexpressed conscious demand, and (3) subconscious demand.

The three classes may be illustrated by supposing a product for sale by grocers to be advertised in a periodical of large circulation by a double page costing for one insertion $8,000. If as a result of the advertisement 30,000 people go to the grocery and buy the product, 60,000 plan to purchase the product at some future time when such an article is needed, and 100,000 more become open to a further exciting force, such as seeing the product at the grocery and recognizing it as one advertised, then we should call the 30,000 the expressed conscious demand, the 60,000 the unexpressed conscious demand, and the 100,000 the subconscious demand resulting from the advertisement. Expressed conscious demand means present sales; unexpressed conscious demand means future sales; subconscious demand means that the field has been fertilized so that future selling efforts will be more fruitful. Unexpressed conscious demand and subconscious demand are difficult of measure but must always be taken into account in any consideration of the efficiency of advertising as a selling agency.

XI. THE SOCIAL SIDE OF ADVERTISING [1]

By Stuart Chase
Certified Public Accountant and Member of the Staff of The Labor Bureau, Inc.

Advertising and publicity, generically speaking, are here to stay. They can no more be abolished than can the motor car. They are as integral a part of the modern business system as loose-leaf ledgers, typewriters, and executive conferences. In a system devoted to individual profit-making, when one firm (was it the Smith Brothers?) demonstrated that more profit could be made by advertising, it followed, under the rules of the game, that other firms would try it out, and others and others — until the last inch of advantage had been squeezed from the new technique. As immense profits are still flowing from its use in certain fields, and as there is no drastic change contemplated in the business system, advertising is in its heyday — a billion and a half of it a year — and will continue so, until it can be demonstrated that it does not pay. . . .

Because a thing lawfully exists, is no reason why it should not be criticized. But before we can attack or defend advertising with any show of reason, we must break it down into its constituent parts. There is advertising and advertising — from instant cancer cures to Red Cross relief; from how-to-earn-ten-thousand-dollars-a-year-in-your-spare-time to Waltham watches. It cannot be condemned as a total phenomenon, any more than machinery can.

A rough classification of advertising might take this form:

1. Campaigns conducted in the intent of public health, safety, afforestation, sanitation, famine relief, public education.

2. Notification of new products and inventions.

3. Notification of special sales and opportunities (department-store advertising, etc.).

[1] Adapted by permission of the Survey Associates, Inc., and of the author from the *Survey Graphic*, November, 1928.

4. Competitive advertising:
   a. With fraud and misrepresentation.
   b. With purple, but legal, prose and picture.
   c. With exact statement of fact.

5. Good-will advertising — for products and services commanding a monopoly (like the telephone company).

6. Personal publicity — for business reasons.

Some of these subdivisions are of the utmost excellence, some are altogether damnable, while the balance vary between. We will try to make the distinctions presently.

Furthermore, advertising cannot be seriously criticized until the ground of the attack be first defined. Shall we criticize it from the point of view of the going economic structure — business as usual — or shall we take the somewhat aërated level of a functional society, that is, an economic system designed and directed specifically to satisfy material wants through social rather than individual action?

Taking the latter idea as the more theoretical (though 150,000,000 people inhabiting one-sixth of the land area of the planet are now experimenting with it), and hence the more remote, it may be briefly dispatched. In a functional society, all competitive advertising would be written off as waste, loss and leakage; an unwarrantable expenditure of man power, of lampblack and wood pulp — to say nothing of the shocking loss of human dignity involved in turning the spotlight on one's own vest-buttons. . . .

Good-will advertising would be meaningless in a functional society, and personal publicity for business reasons unthinkable. But very wide notification of new products and inventions, together with improvements in existing products, would certainly be encouraged. Notice of bargain sales and exchange opportunities would hardly be frowned upon. Meanwhile gigantic publicity campaigns for public health, safety, cleanliness, education, would be the order of the day, even as I saw them everywhere in Russia.

When it comes to advertising mediums, I suspect that functional control would utterly proscribe billboards, giving citizens a large cash bounty for evidence of every one summarily destroyed. Beauty and convenience would be the guiding factors. Certainly such well-designed posters as

one sees in Germany, Switzerland, Russia, France, and more frequently now in America, would be markedly in evidence. . . .

Granting the going economic structure of western civilization — which may be briefly summed up in the five words, "all the traffic will bear" — does anything remain in our system of advertising against which criticism may properly be leveled?

In my opinion, a good deal remains. And in the opinion of reputable advertising men, a somewhat less — but still substantial — margin, remains. Every honest business man . . . will agree that advertising which is either in the nature of fraud, downright misrepresentation or unfair competition, has no legitimate place in the public prints or on the billboards. This stricture at once casts doubt upon several hundred million dollars' worth of space now taken . . .

Furthermore, competent analysis of advertising media, undertaken by the advertisers themselves, makes it only too painfully evident that further hundreds of millions a year are thrown away upon both copy and the purchase of space which not only nets the manufacturer nothing but runs him into the red. In their recent book (*What about advertising?* by Kenneth M. Goode and Hartford Powel, Jr., Harper and Brothers) Messrs. Goode and Powel say:

> Thirteen hundred million dollars was the total revenue of newspapers and magazines in 1925, of which advertisers paid $970,000,000, or 70 per cent. It took rare courage, therefore, for a publisher of ripe judgment to testify at the anniversary dinner of one of the world's great newspapers that his experience convinced him that half the money put into advertising goes to waste through lack of proper preparation. Another man of his business generation, after thirty-five years in large-scale experiment on actual campaigns, has reiterated an opinion that advertising waste runs as high as eighty cents out of every dollar. A dozen advertising managers, at cigarettes between speeches of a recent meeting of the A.N.A., are said — startlingly — to have agreed that competitive use of constantly larger space had hoisted advertising waste nearer ninety cents out of every dollar.

As wayfaring consumers condemned to pay the total cost of advertising, we may be permitted a gentle objection or two if from 50 to 90 per cent of that tremendous bill is sheer waste *from the testimony of the advertisers themselves.* It is highly dubious, furthermore, whether radio advertising, and the broadcasting of sponsored programs, the bellowing

of loud-speakers from airplanes upon a defenseless and already too noisy city, result in anything more profitable than resentment.

Beyond these fields of fraud, overt misrepresentation, unfair competition and waste, advertising is perfectly justified under the canons of business as usual, and all the traffic will bear. It is to the seller's advantage to use it to the limit of legality. Not a whisper can be breathed against it so far as prevailing usage and prevailing standards run. It is even possible — though I have yet to see very much in the way of careful proof — that in certain cases, advertising by enlarging demand has reduced unit manufacturing costs and, with them, selling prices.

At this point the argument shifts from what might be termed social criticism, to a matter of common sense on the part of the buying public. Granting that we, as ultimate consumers, are reading the advertisements, buying things on the strength of them, and getting a certain quality and paying a certain price; granting that we are making many fat corporations even more corpulent — are we getting the most out of our dollars? Is there anything that we can do to make a given dollar go farther?

Production has become a science. Consumption is still in the realm of astrology. I believe that there is a very substantial cut to be taken in the cost of living by introducing standards, knowledge, science, into consumption, the inevitable effect of which will be to debunk, discredit, and drastically change the bulk of modern, legal, competitive advertising. That this change will break a lot of manufacturers goes without saying; but it will have no serious effect on the total output of goods (save probably to increase the gross tonnage) for what one manufacturer loses, another will gain. The going economic system will continue to go. . . .

The astute advertiser has turned to the dawning science of psychology with million-dollar results. He has catalogued those springs in human behavior which lead to tangible pocketbook, check-writing action. He has learned to mark grooves in our minds by constant repetition of a slogan or a brand name; and through the psychological law of the association of ideas, when we think of soap, "Ivory" snaps into focus; when we think of cigarettes, behold we are walking a mile; of coffee, the kind that's good to the last drop; of paint, Messrs. Sherwin and Williams are covering the earth. In stressing its services, the greatest of billboard

concerns observes cogently that "Repetition is Reputation," as indeed it is. Which is excellent if the product is also excellent, but alas, the technique can also be used effectively for an inferior product.

Listen to a solemn warning from a glass-bottle trade journal:

> The destiny of the food-packing industry lies in the hands of the food packers themselves. If they will not attempt to make the public prefer canned to fresh products, they will have only themselves to blame.

The implication is clear that the food packers can — through judicious advertising — force the public to buy canned food as against fresh. When this great campaign breaks, I prophesy that one of the main copy angles will be throwing fear into the populace with pictures of germs (magnified 1,000 diameters), and accounts of epidemics arising from the consumption of improperly cleaned fresh fruits and vegetables. (Just how they will handle oranges I do not know, but we can safely leave it to the master minds.) Meanwhile an advertising campaign at only a fraction of the millions necessary to frighten us away from fresh foods, directed by public authority, towards the proper cleaning and care of garden and orchard products, would be pure social gain, where the tin-can fraternity's project is bound to be almost pure social loss. The cleavage between what I regard as essential and nonessential advertising could scarcely be better exhibited.

Another great technique employed by the advertiser is "buying with the eyes." The eye appeal is usually stronger than the other sense appeals. Therefore if the manufacturer making things for the senses, can present them in the form of a sufficiently engaging eyeful, his chances of turnover are greatly enhanced, nor does he need to bother so much about the quality of the product itself. Thanks to this technique we have the phenomenon of buying the package rather than what the package contains. The splendor of cosmetic containers, perfume bottles, soap wrappings . . . the slick nickel of vacuum cleaners, the neo-Byzantine façades of radio sets — all tend to take the mind away from the fundamental chemistry or mechanics of the perfume, the car, or the radio, and stupefy it by the contemplation of such unparalleled glitter.

"The only way to recognize a cigarette is to look at the label." Careful tests in the psychological laboratory of Reed College, Oregon, have

conclusively proved that blindfolded, we do *not* know the difference. One hardened smoker's test-sheet showed that in forty-four presentations of Old Gold, blindfolded, he named it as follows:

Camel	13 times	Three Castles	1 time
Lucky Strike	10 "	Tareyton	1 "
Fatima	7 "	One Eleven	1 "
Chesterfield	5 "	*And Old Gold — just twice*	
Stroller	4 "		

Cigarettes are thus overwhelmingly sold on the evidence of the eyes rather than the evidence of the taste-buds. Effective advertising creates magical and metaphysical virtues and preferences that fail to materialize in laboratory tests. . . .

Space does not permit of further specific analysis of the methods employed in competitive advertising, but the additional cases which my engineering friends are ready to introduce are legion. In the whirlwind of all these appeals, the consumer may buy the best product, the medium, or the worst. The point is, he is never sure which. No one ever heard of an advertiser proclaiming that his product was anything but the best. Meanwhile, a good product, like a cheap and reliable antiseptic, may be run out of business by a high-priced and not basically effective product — simply by virtue of superior advertising. If the sales appeal is good enough, one can unload nearly anything upon the trusting public. Over great areas we buy not quality but luscious words wrapped around glittering packages. Unarmed with any scientific knowledge, we are at the mercy of able phrase-makers. . . .

Returning now to our original subdivisions of advertising from the standpoint of business as usual, it appears that no criticism can attach to honest notices of new products and inventions, special sales and opportunities, nor to competitive advertising which restrains itself to exact statement of fact, without undue selection of facts — such advertising as is found in the scientific journals. For fraud and direct misrepresentation, no criticism is too stringent. But in respect to competitive advertising with purple — but legal — prose, to personal publicity engineered for business reasons, and for "good-will" advertising, which seeks — usually by repetition — to stamp in the virtues and services of great

monopolies, the outstanding criticism would seem to lie in the sublime gullibility of the public which hitherto has bolted it whole and begged for more.

It is up to the consumer. Manufacturers have got the habit and cannot stop of their own initiative. And it would bankrupt them if they did — unless they stopped *en masse*. It is illegal to prevent new enterprises coming into the easy-money fields. There is only one way under the present system to break up the procedure, and that is to stop buying for pictures and adjectives, and buy for quality and economy on the strength of knowledge and impartial laboratory advice. Needless to say, such advice can only apply to the field of essentials, for in pure luxury goods, as Veblen has pointed out, the greater the waste the greater the merit.

In brief, if the consumer is ever to come into his own, it can only be through the introduction of the scientific method into consumption. One suspects that if ever that happy day comes, untold manufacturers of sound, dependable products will fire their more exotic copywriters with a sigh of relief.

XII. INSTALLMENT SELLING [1]

By Orrin C. Lester
Vice President, Bowery Savings Bank

My first knowledge of credit in any form dates back to my early boyhood when father used to take us five children into the nearest town to buy our winter boots at the little old combination shoe store and cobbler shop, owned, operated, and staffed by an old German — whose sole test of a man as a credit risk was confidence in his honesty.

It was a rather regular thing, after father and the shoemaker had made the selections — always at least two sizes too large — for father to say: "Well, Louis, I can't pay you all today. I'll give you this now and the rest the next time I am along." Louis never answered, but he accepted the cash. I think that father usually paid those bills in installments, not by any system that we have now, but by hit-or-miss payments, when he happened "to be along" — and had the money.

It has become common practice for merchandisers of all kinds of goods — from automobiles to golf suits — to urge the purchase of their wares on the basis of a small percentage down and the balance in monthly or weekly payments. We call the system by a variety of dignified names — "installment selling," "installment buying," "installment credit," and just plain "installment plan." It is essential to discriminate between the terms "installment selling" and "installment buying." The interests of the seller may be, and frequently are, contrary to the interests of the buyer.

The primary business of any manufacturing or merchandising concern is to sell its goods. These concerns change models and styles to catch the fancy, and sometimes, I think, to embarrass the pride of the consumer. They use appealing and high-power methods to increase sales. The change in lines and improved equipment in a new model automobile or radio, new styles in furniture, clothing, and the like, stand out so attractively that it becomes difficult to resist them.

[1] Reprinted by permission of the Survey Associates, Inc., and the author from the *Survey Graphic*, November, 1928.

The practice of bringing out new styles and models and using legitimate means of selling them under any form of credit is not to be condemned as a business policy, but it should be remembered that the primary business of the individual as a consumer is to protect and conserve his income and, therefore, that, as consumers, we need to develop a sufficient degree of buying resistance to protect outselves from economic waste through the purchase of articles that we have no economic right to possess. The interests of seller and buyer are not fundamentally opposed to each other. To a certain degree, they are coöperative and mutually helpful, but there may be a point where the successful efforts of the seller in the sale of his goods become a detriment to the permanent economic success of the buyer.

The pros and cons

There has been a great deal of discussion of the good and the evils of installment selling. While the motives of those who hold different points of view on the question are accepted as sincere, their conclusions in this — as in all controversial questions — are bound to be colored by personal prejudice in direct proportion to the relationship which they bear to it. It is natural that those who are directly engaged in any successful system of merchandising will find logical grounds — and honestly so — upon which to justify its policies, and equally likely that those who neither profit from the sales nor indulge personally in the purchase of commodities sold under such a system will find arguments upon which to condemn it.

The installment seller argues that it is an advance in modern economic intelligence and a mark of progress that credit should be extended beyond the producers and distributors of goods to the ultimate consumer of those goods; that while this form of consumer credit is based upon confidence more particularly than upon accumulated capital, yet the tightness of the contract, with the right to reclaim the goods, makes it a perfectly safe business. Up till now, nobody can successfully refute that argument, because the actual losses in installment selling have been negligible.

They argue, moreover, that installment selling, in addition to being a sound business policy is a great social service in that it permits people with relatively little capital to possess and use articles of comfort and

pleasure earlier than otherwise they could; that it has increased the sale of merchandise at a time when business needed a boost; and that employment of people, made possible by the increased demand for merchandise, is in a large degree responsible for our recent years of unusual prosperity.

These adherents of installment selling say there is nothing particularly new in this system of credit; that it was introduced into this country something like a century and a quarter ago, and in Europe even before that time; and that it dates back for centuries in the purchase of real estate and such obligations as public improvements where the assessments on the consumer are spread over a period of years.

Those who argue against installment selling claim that we have not had a fair test of the soundness of this form of credit as a business policy; that the test will come with increased unemployment and with the indulgence of consumers beyond their ability to pay. They deny the argument of great benefits to the people, on the ground that as a rule the goods are possessed only about a year earlier than they would be if the money to pay cash were accumulated by a similar system; that it is an expensive system for the consumer; that it results in overbuying of luxuries by persons who cannot afford them; that it is a constant drain on the income of ordinary people which defeats their plans for accumulating money for the more permanent needs of life.

These opponents of the system ask whether the average American family does not possess many articles of comfort and pleasure considerably before it can legitimately afford them, and if in the long run its happiness is not impaired by overbuying of articles which its economic condition does not justify.

They question whether a family of modest income and practically no accumulation of permanent savings is wise in going into debt for an article which is a constant source of expense, which depreciates quickly in sales value, and which serves no useful economic purpose.

They question how many automobiles or other articles of luxury the people can afford in their present station of economic achievement, and whether most of us would not be better off if we waited until we could fully afford the purchase of some of the modern comforts of life.

They question whether true prosperity should be measured by the

amount of goods that business produces and sells to consumers currently, or by the permanent economic success of all the people.

As I interpret it, the essence of these arguments may be summed up simply: The proponents argue that installment credit is a sound and profitable business that has come into our economic system to stay; the opponents argue that installment credit is a detriment to the common good.

The recent growth of installment credit

It would be futile for even the most militant objector to installment selling to argue either that the system has been unsuccessful as a business or that purchasers do not like it. It has been successful and profitable, and our annual installment-buying bill attests to its public popularity. And with proper regulation and restriction by installment-selling firms and banking interests, it probably will become a sound form of credit.

It is estimated that the total volume of installment sales annually, in the United States, is between five and one-half and six billion dollars. The largest single item is automobiles. The Automobile Chamber of Commerce estimates the retail value of the automobiles sold in the United States in 1927 at $3,600,940,990 (passenger cars and trucks). About 60 per cent of these cars, 80 per cent of household furniture and equipment (pianos, radios, washing machines, vacuum clearners, and so on), 75 per cent of tractors and 10 per cent of other farm machinery, and 25 per cent of jewelry are sold on installment credit. The average down payment is around 20 per cent, and the average carrying charge about 12 per cent. On automobiles, the average time required to complete payments is 12 months; on tractors and other farm machinery, 12 months; on household articles, 14 months; on clothing, 15 weeks.

Notwithstanding the argument that consumer credit is not a new idea in this country, it is only within the last few years that this form of credit has become of great general economic consideration. Installment buying of the common articles of personal and household use is a relatively new feature of American credit.

There is also something of a new and different psychology in installment selling as it operates in American business in that it applies to articles that are relatively short-lived as contrasted with something like

real estate that has a permanent and usually an advancing value. Very few persons could be induced to buy real estate unless they expected it to increase in value, or at least to hold its own, but on the other hand they will buy freely articles of comfort and pleasure which they know will decline immediately in value.

An effective indictment that might be brought against installment credit by its opponents is that it is so successful as a business method and so attractive to the consumer as to become a detriment to the permanent economic welfare of the people who use it. It cannot be denied that installment credit has been eminently efficient in producing the result for which it was designed — to encourage people to buy more goods than they otherwise would buy and, perhaps, more then they should buy under any system of purchase.

By way of example, I was attracted the other day when the young man who mows my lawn came into the driveway in a new sedan. I could not help contrasting his efforts to increase his capital through his daily wages (which must support five children) with the gradual but certain decline of his capital through the depreciation of his automobile. I debated honestly and dispassionately whether the comfort that he and his family get out of the car justifies carrying the burden of the installment payments, which are bound to consume what otherwise might be a substantial permanent saving. And I could not help asking myself whether the dealer who sold him the automobile on installment credit had done him a good turn or not.

There are two great economic impulses that invade the mind and conscience of practically every individual, and two corresponding forces at work in every community to encourage the survival of these impulses. The one is a man's impulse to consume his earnings as he goes along to satisfy his wants of the moment. The other is the impulse to conserve some part of his earnings for his later and more permanent needs. A sort of economic war goes on constantly between intelligence and passion, presenting the fundamental question whether the economic actions of people are going to be controlled by education or by sales efforts. This is an old, old question, which installment credit has only magnified because of the tremendously increased current spending it has invited. Obviously, we cannot command by legislation or control by moral in-

fluence the economic actions of people, but how far we should try to direct them toward rational economic experiences through education is a question that may challenge the combined responsibility of business and social leaders.

My personal judgment is that the greatest social problem of any nation is the intelligence or lack of intelligence with which its citizens use their personal incomes, and that any system of legitimate business, any scheme of unsound promotion, or any practice of the people that tends to economic waste will, in the long run, be a positive handicap both to business and to the public good.

The two basic arguments of the proponents and opponents of installment credit do more than merely sum up two different opinions. They raise the fundamental question whether any business policy in the end will be successful which, in addition to being profitable as a business, is not socially beneficial to the common welfare. Putting it in another form, they question whether in any permanently successful business policy there must not be a mutuality of social purpose as well as an individual or corporate right to private gain.

Social implications of installment credit

Unfortunately, many people have a suspicion that a new departure in business policy needs to be watched, lest the business may try to "put something over" on the people. I have great confidence in the integrity of business and in its "usefulness of purpose." But business, like every other department of human conduct, is not infallible, and it is not unlikely that in deciding its policies business will give more consideration to its possibilities for profit than to its ultimate benefit to the public good. By the same token, it is not likely that those who have no association with commercial businesses would set a standard of altruism for business that might be impractical if not impossible to attain. These two rather opposing viewpoints are not to be condemned. They should serve as a check against each other.

Personally, I am willing to accept installment credit as a business policy that has "come to stay," but I am not willing to subscribe to all its practices or to admit that it is not promoted beyond the point of general economic and social advantage. I think people are buying goods

on the installment plan beyond the point of good judgment and of sound economic practice, and that some of them are buying beyond their ability to pay.

Installment credit should be regarded as a means of paying for goods and not as a reason for buying more goods, for the fact always remains that the obligation must be met. Whether it is met out of accumulated capital or out of future earnings does not reduce the personal responsibility or the amount of the bill.

If savings institutions had been as diligent and as ingenious in working out plans for the systematic saving of money in advance for the possession of articles of comfort and pleasure that people want, as installment-selling firms have been in showing them how to possess goods without the money in hand, neither business nor the public would have needed the installment-credit system. But now that it is here, we must not break down the confidence of the people in it by destructive criticism. A reasonable amount of installment buying is beneficial. But it would be unfortunate both to business and to the public if this wholesale urge to mortgage incomes before they are earned should become a permanently increasing method for the possession of the common articles of everyday use.

So far as I know, it has not been proved conclusively that American business would not be equally successful in the long run on a consumer-cash basis, as on a consumer-credit basis — if we educated people to a systematic habit of saving their money for the specific uses to which they want to apply it. While installment credit has acted as a temporary stimulation in sales of the articles it affects, yet there are outstanding examples of eminently successful businesses that operate strictly on a cash policy.

An economist declared recently that the great difficulty with installment buying is that we know so little about it. "Here is a new engine," he said, "or rather, here is a new series of engines created, all running along separately, without a railroad or tracks, and without any system of signals. We do not know how many engines there are; we do not know how powerful they are; we do not know where they are going. We have become so accustomed, during the ten years since the war, to an increasing knowledge of many of our industrial changes, that this growth of

installment buying must of necessity upset our equilibrium. Every new device like this is — and by rights should be — examined, tested, discussed, and altered, just as a new device in any of our businesses must be tested thoroughly before it is accepted as part of the general scheme."

Installment selling has not been tested as a permanent credit policy. We have not settled the fundamental economic fact as to how far down the line consumer credit should be extended for the best interest of business and for the common good. Should it be restricted or should it go all the way?

Before we can decide how permanently valuable installment selling — or any other large and popular means of merchandising — is, we must determine more fully and scientifically what a rational economic experience is on the part of the people in various stages of economic success. We must determine how far we can afford to go toward spending up to our full ability to pay, and how far we can obligate ourselves for debts based upon a relatively uncertain assurance that the capital will be produced to meet those debts; and these things are just as important to business as they are to the public good.

In installment selling, as in all two-sided questions, a composite judgment of both sides would produce a great deal more illuminating information — and perhaps a sounder business policy — than any protracted partisan debate. My chief concern in installment credit, as in any other principle of business, does not lie in the regulation of that business by governmental action or in the opinion of the "moral objector," but in the education of business and the consumer to a common viewpoint as to what is the most advantageous policy for permanent prosperity. I am interested that business and other agencies and individuals who stand as the champions of the social good shall join forces in an effort to eliminate the evils and preserve the virtues of installment credit, looking to a refined and more scientific system based upon a permanently sound business policy and upon the honest needs of people; that by such improvement of the system and by organized education, and other methods of publicity and propaganda, people may be induced to buy on the installment plan, or on any other plan, only those articles which they legitimately can afford.

XIII. INDUSTRIALISM AND SMALL BUSINESS

By Donald J. Henderson
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The study of modern industry has quite naturally been devoted for the most part to what is somewhat loosely referred to as Big Business. Since the Civil War the remarkable growth of large-scale operations, the transition from concerns serving local and limited markets to concerns serving markets national and even international in scope, the development of integration and combination, have provided a distinctive subject matter as well as some of the most provocative problems of the age. Undoubtedly these developments do possess more significance for the present and future of society in its economic phases than do the history and the prospects of 'small business.' Yet, though the smaller business units have been forced to content themselves with a minor rôle in the public eye, their existence as a part of our economic system is by no means anachronistic.

The transition period from 1870 to the present time has not been a record of complete or even of easy triumph for Big Business. The change has not been as sudden as "The King is dead; long live the King." In agriculture particularly, the family homestead still remains the typical unit of production. There are some recent developments in the way of coöperative marketing and of corporative farming which may in time contest this supremacy of the small unit even here; but up to the present time Big Business has made little progress in agricultural occupations. In the field of distribution, the small, independent retailer, wholesaler, and jobber still carry on the bulk of the national business. It is in this field that Big Business has lately been making its greatest inroads. Chain stores, department stores, and chains of department stores, company stores, wholesalers' combinations, and coöperative marketing developments indicate a possible repetition in the distributive field of what has been happening in the field of industry proper. And yet even in industry, the triumph of Big Business has not been complete. In some industries, it is true, the smaller business units have been practically eliminated.

In others, they are of minor importance both in numbers and with regard to the proportion of the total volume of business which they handle. In large numbers of industries the small and the large exist side by side, dividing the total volume of business between them in varying proportions. And finally there are a surprisingly large number of industrial fields in which the small independent producers remain in nearly undisputed possession.

What is "small" business?

A great variety of questions and problems confront us in the consideration of the history, condition, and prospects of small business. What specifically do we mean by small business? To what extent does small business still exist, especially in the industrial field? In what industries has small business been most successful in maintaining itself? What disadvantages do these smaller units possess in the struggle with their stronger industrial competitors?

The distinction between small and Big Business might seem to be pretty well established to judge from the frequency with which the terms have been used. The iniquities and the advantages of Big Business have been the burden of many a political speech and newspaper editorial. Unfortunately the political and editorial mind uses this distinction in an invidious sense; almost any business, important enough to irritate or endanger other groups, has been damned by the epithet, "Big Business." In the popular mind, Big Business often has been identified with corporations and monopolies. This identification of Big Business with the fact of incorporation or of monopolistic position roots back into the earlier phases of the trust movement when it was, to some extent, genuine. There are, however, more small than large concerns which incorporate each year. The advantages sought through incorporation are not primarily connected with size at all. While it is true that some monopolies are clearly large-scale in their operations, many of them are not. Furthermore, most Big Business is either not monopolistic at all or only partially so. Many a small business is both incorporated and partially monopolistic.

Speaking from a functional point of view, we may distinguish small from Big Business by the degree of control which a concern is able to

exercise over the various conditions affecting its success. Big Business is characterized by the greater degree to which it can control vital factors. Production technique, labor supply, markets, price policies, raw materials, and credit conditions are all subject to more or less control and are all involved in the maintenance of profit margins. The attempt to secure profit margins and hence business success has resulted in constant effort on the part of business concerns looking towards more successful control of these conditions. Many and varied are the means of achieving this control. Before the Civil War in this country, limited markets, hand or tool techniques, small credit requirements, and the absence of advertising techniques may have permitted the small and localized concern to secure a reasonable and satisfactory degree of control over the factors vital to its success. Today, however, the business organization which cannot employ the most efficient machine technology, exercise some control over demand through advertising campaigns, maintain a price policy, have some control over its sources of credit and raw materials, is justly considered to be a small business. The Ford Motor Company, the United States Steel Corporation, the Atlantic and Pacific Company, the General Motors Company, and the California Fruit Growers Exchange, are different kinds of business, structually considered. Vertical combination, horizontal combination, closed corporation, holding company, and coöperative, are all represented. They all are able, within wide limits, to control the conditions vital to success; that much they have in common. The typical small business man, on the other hand, is unable *through his own business organization* to do so. His dependence on organizations independent of him, his lack of control over buying, selling, and price policies, and his inability to develop his markets are generally characteristic.

Viewed with reference to the functional aspect of business, that is, with reference to the maintenance of profit margins and the making of money, the distinction between a small and a Big Business is not fundamentally a question of size. It is true today — for various reasons such as the exigencies of machine technology and the anti-trust policies of the government — that Big Business is predominantly large-scale in operation and takes the form of huge holding companies or consolidations. More recently, however, the developments along coöperative and associa-

tional lines have enabled many small business units to function with more control and join the forces of Big Business. And it is this greater degree of control over vital conditions which seems to set off Big Business from small business.

The extent of small business

When we come to the question as to the extent to which small business still exists, we are faced with the necessity of finding some criterion of Big and small business which is statable in quantitative terms. The degree to which a business concern is capable of exercising control is too general and qualitative to help us much here. No single criterion, even of a quantitative nature, is completely satisfactory either. The number of wage-earners employed in various concerns is one way of comparing the sizes of business units. The value of the annual product and the size of the annual net income of concerns are also commonly used to determine relative size. It is not our intention — nor is it possible — to give a very exact statement of the extent to which small business exists in industry today. We shall only examine the question in order to gather some conception of how important a part small business still plays.

Judging the amount of small business in manufacturing industries on the basis of the number of wage-earners per establishment for the years 1914, 1919, 1921 and 1923, Willard L. Thorpe [1] has compiled the following figures from the Census reports:

Distribution of Establishments Employing Six or More Wage-Earners, by Number of Wage-Earners per Establishment, 1914–1923

Wage-Earners	Number of Establishments			
	1914	1919	1921	1923
6 to 20	53,954	54,317	53,771	54,609
21 to 50	22,879	25,176	23,898	25,212
51 to 100	11,070	12,370	11,047	12,346
101 to 250	8,465	10,054	8,532	10,023
251 to 500	3,108	3,596	2,916	3,835
501 to 1,000	1,348	1,749	1,241	1,784
Over 1,000	648	1,021	645	963

[1] National Bureau of Economic Research, *Recent economic changes in the United States*, 1929, vol. I, page 168.

In commenting on the significance of these figures Dr. Thorpe says: To this array, one interested in small establishments should add those which employed less than six wage-earners and were excluded from the tabulation above, amounting in 1923 to nearly 90,000 establishments. That the number of establishments in the United States employing 1,000 wage-earners is less than 1,000 is contrary to the usual impression of the United States as a country of enormous factories and mass production. The small establishment shows no tendency to disappear, despite the large concerns. But the data giving merely the number of establishments do not fairly indicate the importance of the larger plants. The 6,582 establishments employing more than 250 wage-earners in 1923 represented less than 4 per cent of all establishments, yet they employed four and one-half million wage-earners, or slightly more than one-half.[1]

Grouping establishments according to the value of their annual product, we get very much the same result — a predominance, as far as numbers go, of the smaller concerns:

DISTRIBUTION OF ESTABLISHMENTS, BY VALUE OF PRODUCTS PER ESTABLISHMENT, 1923 AND 1925 [2]

Value of Products	Number of Establishments	
	1923	1925
$5,000 to $20,000	61,881	55,876
20,000 to 100,000	72,139	68,951
100,000 to 500,000	41,818	42,209
500,000 to 1,000,000	9,494	9,771
Over 1,000,000	10,248	10,583

These figures are limited to manufacturing establishments; a more general view of this situation may be had in connection with net income figures of the size of corporations. In agriculture for the year 1926 only 80 corporations reported net income in excess of $100,000; in mining there were 495 similar corporations; manufacturing had 4,765; construction had 277; transportation and public utilities had 818; trade had 1,543; public service had 406; finance, 1,913. Thus, for all corporations engaged in these main economic fields, only 10,300 report a net income for the year in excess of $100,000.[3]

There are certain classes of industries in which for various reasons

[1] National Bureau of Economic Research, *Recent economic changes in the United States*, 1929, vol. I, pages 168–169. [2] *Ibid.*, page 169. [3] *Ibid.*, page 180.

small-scale production and small-scale management seem definitely to predominate. A fairly adequate list of such classes of industries has been prepared by Dr. Thorpe:

1. Industries in which products cannot be standardized and establishments which make products to suit the differing tastes of consumers. Such industries produce tailored suits, high-grade furniture, art goods and finely bound books.
2. Industries producing for a small market, such as those manufacturing artists' materials and nets and seines.
3. Industries in which the local market is small and whose product has a high transportation cost. In the manufacture of artificial-stone products, or bricks, the activity can seldom be on a large scale because of the limited local market and the high cost of transportation.
4. Industries in which the material used is widely scattered and cannot be concentrated because of high transportation cost or perishability. Cheese factories and cider mills may be included in this class.
5. Industries in which skilled labor is the chief element, such as engraving and job printing, whose products are really services rather than commodities.[1]

Enough has been said to show in a general way the large numbers of small businesses which still exist in most fields. Our attention has been directed primarily to manufacturing industries, for it is in this field that Big Business made its earliest and most serious inroads on small business. And though the trend in the past fifty years has been towards larger business units not only in manufacturing but also in most other fields, the extent to which small business exists makes an inquiry as to its competitive condition of considerable importance.

In most industrial fields both small and large concerns exist. In such a situation these smaller concerns are faced with many disadvantages arising both from the presence of the larger concerns and from the fact of their own smallness. Earlier in the study of this course the technical advantages possessed by large-scale producing units have been taken up rather completely. These advantages are, largely, disadvantages to the small business units from the competitive side. Unable to employ the most efficient sized producing unit and the appropriate techniques of production, these smaller units are at a distinct competitive disadvantage.

Of even greater importance is the relative weakness in bargaining power of the smaller competitors. This weakness in bargaining power

[1] *Ibid.*, page 188.

may be a competitive disadvantage to the small concern in several ways. First, in the purchase of raw materials and supplies the larger purchaser may gain in two ways: he may achieve economies through mere volume of purchase, and he may secure better terms by virtue of his more skillful purchasing department, more timely buying, and greater importance to the seller. In the case of the large vertical organization, the purchase of its raw materials and supplies in a competitive market is avoided with marked gains. Second, in the distribution of its products the larger concern has several competitive advantages over the smaller. It is better able to play wholesalers, jobbers, and retailers off against one another. In the past, rebates and various kinds of competitively unfair practices were often used by the larger concerns to get more favorable terms. Perhaps more important today is the ability of the larger concerns to eliminate some of the middlemen and bargain directly with the retailer. The employment of various kinds of resale price agreements, some of them apparently legal and some illegal, give the larger concerns an added control and competitive advantage not open to their smaller competitors. In the third place, the greater bargaining ability of the larger enterprise often enables it to secure labor more cheaply. Faced with high labor costs or impending labor trouble in one plant, it often is able to suspend operations there and shift its main operations to other plants and sections. Where collective bargaining on the part of labor is used, the smaller industrial concern may find itself unable to bargain as effectively because of its lack of high-grade ability. Fourth, in its relations with financial institutions, the smaller concern may be forced to pay higher interest rates. Large enterprises very often have direct personal connections with their banking affiliations. There also is the growing ability of the larger concern to borrow directly from the public through the sale of its securities. Even though the smaller enterprise may emulate Big Business in this matter, its securities usually cannot be floated without more expense and less advantageous terms from the bankers underwriting the issue.

There are a great many advantages which the larger competitors possess over the smaller concerns in the field of selling. The extensive use of advertising for national markets or even much more limited markets is an outstanding example of this. Even though the production

costs of the larger concerns are as high as those of the little fellows, the conditioning of demand through advertising may enable the larger concern to capture the market. Advertising often enables nationally known articles to sell for a higher price. John Smith's Toothpaste may sell for a lower price and be of better quality, but ordinarily its chances of successfully competing with a nationally known brand are small. The ability to maintain a competent sales organization is a second characteristic of Big Business which puts the small concern at a competitive disadvantage. In the third place, until the passage of the Webb-Pomerene law permitting small exporters to combine, the larger concerns were at a distinct advantage in competing for export trade. Other competitive disadvantages which the small business often is faced with in selling are its inability to handle bad debts as successfully and its inability to gauge its market as successfully as the larger concern. This second difficulty often results in the carrying of unnecessary stock with a consequent loss in storage, insurance and depreciation.

These strictly economic disadvantages must be supplemented by a great variety of other conditions which hamper the small business in competition with the large. Foremost among these is the ability of the larger concerns to hire adequate legal talent to enable them to understand, to make full use of, and sometimes to evade the law. In this day of corporation and anti-trust laws, of patent laws and pure-food laws, and a host of similar regulations, the business organization which cannot provide itself with skillful and resourceful lawyers is decidedly at a disadvantage. This is especially true with respect to the anti-trust laws. Someone has remarked that the anti-trust laws apply only to those who have not had legal advice. Another important advantage possessed by the larger concerns is their ability to bring pressure to bear on various branches of the government for either aid or protection, or for both. The tariff is a conspicuous example of this. A tariff ordinarily is not a scientific creation; it is most frequently a result of specific business groups acting through their Congressmen to gain protection in some cases and a more favorable competitive situation in all cases. The small business may gain along with the Big in some cases, but frequently it does not. Taxation offers the larger concern still another way of using its strength and connections through governmental pressure. The greater ability of

Big Business to secure favorable legislation, or at least to prevent unfavorable legislation, has also been important. This is especially true of state legislation. Many state anti-trust laws and general incorporation laws, with respect to both their creation and their enforcement, have shown the guiding finger of Big Business.

These various competitive advantages which Big Business possesses may be summarized under four general heads. First, and probably in most cases the least important, is the ability to develop and employ the most appropriate production technique. It should be remembered that the most appropriate technique in many industries is open to small business as well as large, though changes in technique have steadily increased the size of the most efficiently operating plants in many industries. Second, Big Business units have been more successful in developing markets and in conditioning demand. This is of prime importance today for two reasons. With our steadily growing productive capacity, the competitive struggle centers more and more around markets and the purchasing power of the consumer and less around costs. And furthermore, the ability to condition demand in favor of trade-mark, brand, and package, removes these concerns even more from a competition based on production costs. Third, the greater bargaining power of the large concern gives it a decided advantage. This advantage shows itself not only in the market but also with respect to governmental activities. And fourth, Big Business has generally shown itself more adaptable to various conditions not directly controllable. The ups and downs of business cycles, world trade conditions, and unsettling political events are as yet not amenable to control even by large enterprises. Successful adjustment to them is the goal of Big as well as small business.

The central feature of the struggle in this growth of Big Business has popularly been known as the trust movement. The conception of the trust movement as an attempt on the part of certain business groups to secure a monopolistic position has been true for only a relatively small number of businesses. This movement, broadly conceived, has been a history of attempts on the part of business groups to secure more control over those conditions vital to the maintenance of profit margins. In many industries technological, financial and competitive conditions following the Civil War were such as to make a greater degree of control

over a greater variety of conditions the goal of intelligent business conduct. The immediate motives leading to a more controlled state of affairs have of course been somewhat varied. The desire to secure monopoly profits, the desire to avoid a ruthless competition that leads to the "death of trade," and the desire to secure promoters' profits, have all played their part. And even more varied than the immediate motives have been the various forms of business organization adopted to secure more control: gentlemen's agreements, pools, trusteeships, holding companies, and consolidations have all been used with more or less success.

XIV. THE DECLINE OF THE SHOPKEEPER [1]

By George Soule
Director, The Labor Bureau, Inc.

There was a time when, if a person thought of chain-store merchandising, he was likely to think of Woolworth's and Childs', and to think of them as odd places for the indigent. Though he was not ashamed to own their highly profitable stock, if he were a person of social pretensions he would dislike to be seen entering where things could be bought so cheaply. The five- and ten-cent store seemed to be full of magpie-treasures, imitation jewelry and useless catchpennies, while the Childs restaurant, gleaming and hard as a bathtub and sanitary as a hospital (though its opposite for crashing noise), was a resort of milk-and-pancake-eaters who didn't know, or couldn't afford, anything better. Now these merchandising parvenus have arrived. They occupy favored corners on Fifth Avenue. Woolworth supplies countless homes with glass much like that seen but a few months before in exclusive shops — pieces that may be knocked down to the innocent in auction sales as genuine early Americana. There are hundreds of articles in common use which it would be a useless extravagance to buy elsewhere. And Childs has gone in for period decoration . . .

Nor is the service of the chain any longer confined to a few types of merchandise. A family might live, and live well, in most cities, without ever patronizing an independent store. The tobacco and drug chains, which now are among the oldest and best established, alone supply many of the popular wants — indeed, a person could obtain almost anything in a modern chain "drug" store . . . Men's furnishings and clothing, women's stockings and lingerie, shoes, groceries, meat, candy, music, dry goods, bakery products, laundry work, cleaning and dyeing, gasoline and oil — one after another of the fields of retail supply are being invaded and conquered by large-scale enterprise. . . .

[1] Reprinted, by permission of the author and the publisher, from the *New Republic*, April 4, 1928.

Since the United States has never taken a Census of Distribution, we do not know many facts about this mercantile revolution which would be interesting. We can, indeed, only guess at its extent. Dr. Paul H. Nystrom, of Columbia University, estimates that of the total retail trade of 1926, amounting to about $40,000,000,000, chain stores did 12 per cent. Against this, independent unit stores, he believes, accounted for 63.75 per cent, department stores for 16.5 per cent, mail-order houses for 4 per cent, company stores for 2.5 per cent, house-to-house canvassing for 1 per cent, and consumers' coöperatives for a tiny quarter of 1 per cent. More significant than their status at the time, however, was the gain of the chain stores from the date of his survey in 1923 — only three years earlier. While the total retail business was increasing 10 or 12 per cent, or at the rate of 3 or 4 per cent a year, chain stores made a gain of 50 per cent, or more than 16 per cent a year. Department stores made a smaller, but decided gain, mail-order houses held their own, while independent stores suffered. It is significant that the big mail-order houses are now establishing chains of retail stores, while chains of true department stores are growing.

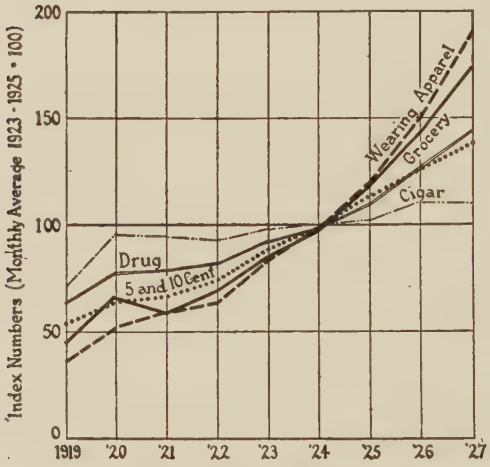
If we think of the increase of the chains principally in terms of Woolworth and its competitors, we distort the picture. Grocery chains made the enormous gain of 75 per cent between 1923 and 1926, according to returns to the Federal Reserve Board. Next came the candy stores with 56 per cent. Men's wear chains grew more than 11 per cent during 1927 alone — generally regarded in the trade as a poor year — and in January, 1928, 22.7 per cent of the men's wear shops were in chain organization. If the present rate of growth continues, the whole trade will be in their hands in about twelve years.

In the larger cities, the business of the chain stores bulks even greater. The Census Bureau recently undertook a trial survey of retail distribution in eight cities — Chicago, Baltimore, Providence, Kansas City, Seattle, Denver, Atlanta and Syracuse. Of a total retail business of roughly $3,500,000,000, chain stores did $1,055,000,000, or just under one-third. The trade of the independent stores (excluding the department stores) was about $1,900,000,000. That of the department stores was about $553,000,000. And some of these were members of chains.

At this rate, the transition from small-scale to large-scale distribution

bids fair to be more rapid and complete than the much discussed transition from small-scale to large-scale production. How may we account for it? And what are likely to be its results?

Certain of the causes assigned for the domination of production by large units have not involved real efficiency or superior service to the public. Some of these have also had their effect in parts of the retail field. Ability to make heavy capital investment, for instance, has enabled the modern baking companies to install machinery whose price is prohibitive to the corner bakery, and which enables great savings in cost when bread is made in large enough quantities — though the price to the consumer is little reduced, if at all. Extensive advertising has sometimes been a factor. Monopoly of sources of supply has played a part — as in the case of the tobacco-store chains, indirectly controlled by the very material ghost of the "dissolved" tobacco trust. "Unfair methods of competition" have doubtless helped — as through special sales, and "leaders" sold at ruinously low prices, in order to attract trade, at whatever temporary loss, from the independents with smaller resources.



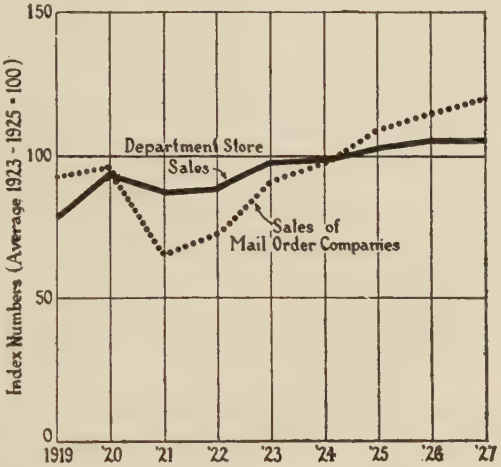
CHAIN-STORE SALES: ANNUAL INDEXES

Much of the rapid growth of this mode of retailing has been made at the expense of independent merchants. Data source: *Federal Reserve Bulletin*, April, 1928, page 234.

Little, however, of the physical equipment of retailing is so expensive that almost anyone cannot obtain it — baking is a special case in which manufacture is bound unusually close to retailing. Many of the more successful chains do not advertise much, and the independent retailer is, on the whole, far more menaced in this quarter by the department store in the large city, or by the mail-order house in the country, than he is by

chain-store advertising. Most sorts of goods sold by chains are still, unlike branded and advertised tobacco products, obtainable in small quantities and without conditions of any kind, by any seller. And the special cut-price sale, while it is a common device of all kinds of retail merchants, can scarcely be relied upon for securing a permanent domination of the market when a new competitor may spring up overnight at any time, where the old one has been killed.

The main advantage of the chain store lies in its ability to eliminate, in one form or another, the appalling economic waste which has characterized through retail distribution small, independent units. In the eight large cities surveyed by the Census Bureau there was still, in spite of the growth of chains and department stores, an average of one store to seventy-three inhabitants. The average yearly sales of each of the independent stores (including the department stores not in chain systems) were only $36,526. If the department stores were to be excluded from the average, it would probably fall to something like $20,000. Each of these tiny units had to be staffed by persons who were either idle a large part of the time, or busy on tasks which would be greatly shortened with proper system and management, tasks which would require little more time with a much larger volume of business. Each carried on its shelves a large variety of stock, much of which was turned over slowly and some of which was scarcely turned over at all. Each was solicited by competitive salesmen and advertising matter, in the effort to sell in small lots highly varied



SALES OF DEPARTMENT STORES AND MAIL-ORDER COMPANIES: ANNUAL INDEXES

These large retailing concerns also are competitors of the small merchants. Data source: *Federal Reserve Bulletin*, February, 1928, page 117, and April, 1928, page 234.

merchandise. The merchandise had to be separately packed, wrapped and shipped. Much of it traveled a circuitous route from manufacturer through jobber or wholesaler, each stage of the travel involving the cost of handling and the profit margin of the handler. Is it any wonder that the immense savings of mass production and of science in the factory have found so little reflection in the prices of the goods we have to buy in retail shops?

The chain, securing desirable corners or other locations shrewdly chosen, adopting uniform and striking store fronts or signs which make iterated impression, using the latest arts of display and enticing arrangements of stock, manages by these means alone to attract more customers to each of its stores than do most of its competitors. Other arts of selling are assiduously studied and practiced. Uniform management, analyzing experience on a large scale, contrives more efficient practices in keeping inventory and other accounts. Little-used varieties of goods are eliminated, and stock is standardized to those lines that are really required by consumers in large enough volume to show a profit. In most cases, credit is eliminated, and the economies of a strictly cash business are realized.

But the most important savings arise from the chain's relations with production. It becomes an active buyer, not a passive vendee. Buying standardized articles in large lots, it eliminates the cost of middle selling and handling, by dealing directly with the producer. If the chain is wholly independent of the producer, it also exercises its great bargaining power to obtain the most favorable prices possible. And more favorable prices are possible, because the costs of the seller are reduced by large-scale production of a limited number of standardized articles. Often, indeed, the chain buys articles below real cost of production by snapping up lots of remainders, or goods made in plants of excess capacity, which it costs the manufacturer a smaller loss to keep going than to shut down. Some chains, selling a regularized product, have been established by manufacturers themselves as a means of assured outlet. Others, seeking the cheapest possible supply, have gone into manufacture. Those independent stores which have met the large-scale competition most successfully have imitated this shortening of the route of trade and this rationalization of supply by coöperative purchasing from manufacturers. Thus the development of mass distribution intensifies the tendency to

standardized mass production, and eliminates competitive waste in selling. In the end, it may appreciably cut down the national advertising by competing producers which is calculated to support, or to bulldoze, independent retailers.

How far are these savings shared with the consumers? There is little evidence yet on this point. Doubtless a large part of the appeal of the chains to the public consists in the offering of lower prices. Investigators in a recent cost-of-living survey for a trade union were embarrassed to find that, in the region chosen, most of the independent shops which had been visited in a similar study some years before had been supplanted by chain stores, many of whose quotations appeared to be substantially lower than those previously obtained. But this observation was complicated by the fact that so many changes had occurred in types of articles for sale (particularly in women's clothing) and in brands, containers and measures (particularly in food products) that accurate comparison was next to impossible. We may safely say that, although some price reduction has resulted, the major part of the chain stores' winnings out of conquering the morass of distributive waste has thus far gone into profits and expansion. The practice seems to be to sell just low enough to attract trade from the independent fairly steadily, but no lower. This leaves a wide margin of profit. Last year the net profits of the four leading chains whose shares are on the New York Stock Exchange increased 19.4 per cent over the year before, while their sales increased only 9.9 per cent. Most of them have steadily enlarged their profit ratios, while their rapid expansion has been financed either out of their own accumulated savings, or, indeed, to a large extent out of current earnings. Woolworth's, last year, made a net profit of almost 13 cents on each dollar of sales, after incurring the expenses of establishing 101 new stores. Few $20,000 retail units did as well.

Independent retailers often attack the chain stores as "monopolies." A few of them — notably the tobacco stores, the drug stores, and the same interests which now control the big candy companies and some of the restaurants, may perhaps deserve the title. But, on the whole, the chains as yet do not dominate their respective fields. And as they advance toward doing so they will collide with each other. In most branches of retailing there are anywhere from two to a hundred chains which are

at least potential competitors. When these giants grapple, the consumer ought really to benefit in price. Then the high costs of the small and wasteful retailer will no longer act as a cushion for chain profits. And the energies of the chains in cutting their costs will redouble.

The end of such a process will probably be, as it has been in other kinds of business, either amalgamation or tacit agreement among the competing chains. Then we shall indeed have a problem of monopoly to consider, especially in view of the fact that many of the chains will control vertical combinations of producers as well.

The objections of the small and losing retailers to this great tide seem puny indeed. Their exhortations to patronize the "naborhood" store, and to keep money in the local community, will be swept aside as they are either eliminated or absorbed into the mechanism. Indeed, the local community will probably benefit, in real income, to an extent greater than the drain of profit out of it which will set in. But the psychic objections may prove more obstinate. Another great class of independent persons engaged in private adventure will have become dependent employees, routinized and with no opportunity to advance except by appointment from the higher-ups. We shall have a socialized machinery, as we now have in many forms of production, without social control. And the consumer may need protection, as to both price and quality. How to find variety, a means of expression for the personality, even defense against positive exploitation and degradation, may become here, as it already is in industry, a knotty problem. Already the minor employees of the great chains are often shabbily treated. It becomes more and more necessary to devise means of social growth to cope with "rationalization."

XV. RECENT FEDERAL LEGISLATION MODIFYING ANTI-TRUST POLICY [1]

By Myron W. Watkins
Research Staff, National Industrial Conference Board

During the last fifteen years there have been passed a number of statutes directly or indirectly affecting the applicability of the anti-trust laws to various organizations and activities. For the most part, though not entirely, these statutes indicate a tendency toward the exemption of certain classes of business from the earlier absolute prohibition of restraint of trade. It is the purpose of this chapter to describe briefly the aim and effect of each of these statutory modifications of the anti-trust laws. They are not of equal importance, and accordingly they will not receive equal attention. Not all of them, furthermore, have been explicitly recognized by Congress as constituting modifications of the established anti-trust policy, and the extent and nature of the modifications which they have effected differ widely.

The Federal Reserve Act

The extent to which the Federal Reserve Act may properly be considered to have modified the established principles of anti-trust policy in their application to banking is a debatable question. The Reserve System is in many respects still in its formative stage of development; interpretations of its functions and powers still differ widely; and in any case, a clear distinction should be drawn between the intention of the law and its effects.

In two respects, however, the Federal Reserve Act in its present form specifically authorizes activities which would, or might otherwise, have been prohibited under the anti-trust legislation existing at the time of its enactment. In the first place, national banks are permitted to establish branches in foreign countries and to hold stock in other banks or

[1] Adapted by permission of National Industrial Conference Board, Inc., from *Mergers and the law*, National Industrial Conference Board, Inc., 1929, pages 101–132.

banking corporations engaged in foreign banking,[1] privileges which are equally available to banking corporations organized for foreign banking business. But the corporations organized to do a foreign banking business under the provisions of the Act are still prohibited from holding stock in other corporations which are in substantial competition with them; they may not engage in commerce or attempt to control the price of commodities, and they must not carry on any part of their business in the United States except such as, in the judgment of the Federal Reserve Board, shall be incidental to their international business. It should be noted, too, that the extension of branch banking by state banks after becoming members of the Reserve System is not permitted, and restrictions are placed upon the establishment of branches by national banks.[2]

Secondly, certain of the prohibitions of the Clayton Act regarding interlocking directorates of banks and banking corporations are waived, subject to approval of the Federal Reserve Board, with respect to directors, officers, agents and employees of banks establishing foreign branches and banking corporations engaged in foreign banking business, and to Class A directors of Federal Reserve Banks, who are permitted to be directors of other domestic banking institutions.[3]

The Shipping Act of 1916

The Shipping Act of September 7, 1916, recognized the common practice of steamship lines to engage in pools, or so-called "conferences," for apportioning traffic, fixing rates, and making similar arrangements, and these agreements, when filed with the Shipping Board, were declared exempt from the anti-trust laws. In Section XV of the Act, it is specifically stated that agreements: (1) to fix rates; (2) to apportion traffic; (3) to pool earnings; (4) to allot ports; and (5) to regulate sailings, are subject to its provisions. It is also provided, however, that the Board may disapprove and cancel any such agreements which it finds discriminatory or unfair or to "operate to the detriment of the commerce

[1] Federal Reserve Act of Dec. 23, 1913, as amended Sept. 17, 1919, Sec. 25.

[2] Federal Reserve Act, Sec. 9, and Sec. 5155 Revised Statutes, as amended by the Act approved Feb. 25, 1927.

[3] Clayton Anti-Trust Act, approved Oct. 15, 1914, as amended by the Kern Amendment, approved May 15, 1916, as amended by the Act approved May 26, 1920.

of the United States." What amounts to the unfairness upon which a disapproval by the Board might be based is indicated by Section XIV of the same Act, which forbids any common carrier by water: (1) to pay rebates; (2) to employ "fighting ships"; (3) to retaliate against any shipper because of his having patronized another carrier or having filed a complaint of unfair treatment with the United States Shipping Board.

It is clear that the range of concerted action among shipping companies permitted by the foregoing sections of the law extends far beyond the range of associated action among competitors sanctioned under the Sherman Anti-Trust Act. In fact, every single purpose for which an agreement is stated to be valid and enforceable after being filed with and approved by the Shipping Board would be directly contrary to law if pursued jointly by competitors in any other business. The statute represents a clear reversal of public policy in this field, therefore.[1] It may be explained on the ground that this industry constitutes a public utility, similar in many respects to the railroad industry. But it is worth noting that in 1916, at the time of the passage of this law, the railroads themselves were still subject to the Sherman Act in all respects. Consolidation of competing carriers was illegal. It was not until the Transportation Act of 1920 that railway consolidations were authorized. It has been held that, under the Shipping Act, a combination in existence at the time the Act became effective, and of which the agreement was placed on file with the Shipping Board, is valid pending its formal certification or disapproval.[2] In other words, combinations among Shipping companies, though technically in restraint of trade, are enforceable contracts unless, and until, they are disapproved by an administrative board.

The Webb-Pomerene Act

As an express legalization of industrial combination under certain conditions and for a specified end, The Webb-Pomerene Act is intimately related to the Federal anti-trust policy. By Section II of this law it was provided that nothing contained in the Sherman Act "shall be construed as declaring to be illegal an association entered into for the sole

[1] Cf., Thomsen *v.* Cayser, 243 U.S. 66 (1913).
[2] Ellamar *v.* Alaska S.S. Co., 5 Fed. (2d) 890 (1925).

purpose of engaging in export trade . . . or an agreement made or act done in the course of export trade by such association, provided such association, agreement or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association." By Section III of the Act, the inter-corporate stockholding prohibitions of Section VII of the Clayton Act were declared not applicable to the ownership of stock in export associations such as were authorized by the Webb-Pomerene Act. By Section V, the organization of export associations among competitive producers in the United States and concerted action in respect to their export operations were specifically authorized. Such associations and agreements are required to be submitted to the Federal Trade Commission for approval, and the associations are required to register annually with the Commission.

In practice, there has been no disposition on the part of the Federal Trade Commission to interfere with the operation of these combinations. It appears that only one complaint has been lodged against an export association by the Commission and this complaint was dismissed without an adverse order. The effectiveness of the Act appears to have been greatly limited for a number of years by the general impression that only through the organization of a corporation, as provided in Section V, could the combination be effected. Latterly, however, it has been held that mere price agreements or agreements for the division of territory among American manufacturers are lawful with reference to their export trade.[1]

Perhaps a more serious impediment to the realization of the full possibilities of the law has been the restriction upon the scope of activities of export organizations arising from the peculiar wording of the Act. Only associations "engaged solely in export trade" were granted the exemptions of the law. "Export trade" was defined as "solely trade or commerce in goods, wares, or merchandise exported or in the course of being exported from the United States . . . to any foreign nation." Ex-

[1] See Annual Report of Federal Trade Commission for 1925, reproducing the letter dated July 31, 1924, to the Silver Producers' Committee. In this letter, the majority of the Commission declared that "An association may, for instance, engage simply in allotting export orders from [*sic*] among its members and in fixing prices at which the individual members shall sell in export trade."

porting, however, is not such a simple operation as is here suggested. The conduct of an export business involves a number of steps, of which the mere physical transfer of goods from within the territorial boundaries of the United States to without is but one. Indeed, for the most efficient conduct of its business a large exporter like the United States Steel Corporation or the Standard Oil Company of New Jersey frequently finds it necessary to own and operate its own ships. It is a quite frequent occurrence, moreover, for an exporter to accept payment in commodities instead of money, which commodities have then to be imported into the United States. And in any case, if the exporter operates his own ships, he is for economic reasons practically compelled to secure return cargoes — as the United States Steel Corporation imports manganese ore for its furnaces in the ships in which it exports its finished steel products.

So long as, by the terms of the Webb-Pomerene Act, the organizations authorized by its provisions are rigidly confined to export trade solely,[1] it is doubtful that the formal associations or corporations will grow appreciably in number or volume of business. Regardless of this circumstance, however, the permission now recognized for exporters to allot orders and fix prices is a great advantage to them in finding an entrance to foreign markets and obtaining satisfactory profits upon the export part of their business. No legal proceedings questioning the validity of the exemption from the anti-trust laws accorded export associations under this statute appear to have reached the courts.[2]

The Transportation Act of 1920

The most signal action taken by Congress in modification of the policy of the Sherman Anti-Trust Act was the adoption of the Transportation Act of 1920.[3] By Section V of this statute, railroads engaged in interstate commerce were authorized to acquire control of competing lines, or to consolidate such lines, subject to the approval of the Interstate

[1] In practice, it appears, this statutory restriction has been very liberally construed, and many of the actually functioning associations do not find it burdensome, as now administratively interpreted.

[2] In the only case which has come up it was decided that the Act did not affect prosecutions pending for the violation of the Sherman Act at the time of its enactment, April 10, 1918. See *Ex parte* La Mar, 274, Fed. 160 (1921).

[3] Act of Feb. 28, 1920, 41 Stat. 480. U.S. Code, Title 49, Chap. I, Sec. 5.

Commerce Commission.[1] It should be distinctly understood that the terms of the Act do not sanction the execution of such consolidations without the approval of the Commission having first been obtained. Indeed, by the first paragraph of Section V, the Commission was directed upon its own motion to prepare a comprehensive plan for the consolidation of the railways into a "limited number" of trunk-line systems.[2] The Commission was not authorized to proceed to put into effect its tentative plan by compulsory measures, but on the other hand the succeeding paragraphs of this section indicate that voluntary consolidation was authorized only when found "in the public interest," and in order to assist the Commission in the execution of its mandate. This is made clear by the wording of Paragraph 8, "the carriers affected by any order made under the foregoing provisions of this section, and any corporation organized to effect a consolidation approved and authorized in such order, shall be, and they are hereby removed from the operation of the anti-trust laws."

It might appear from this passage in the law, and from the provision requiring the Commission to draw up a comprehensive plan of consolidation, that a wide latitude had been opened to the railroads for a complete reorganization of the rail transportation system. It is a matter of common knowledge, however, that no substantial progress has been made in this direction. Nine years after the enactment of the Transportation Act of 1920 the trunk-line railroads of the country are no nearer unification than they were when the law was passed.[3] How is this anomaly to be explained? The immediate reason is unquestionably to be found in the quotation from Paragraph 8 of Section V of the Act, as given in the

[1] The grounds for adopting a public policy toward railroads and other public utilities which is different from the policy enforced in the general field of manufacture and trade are numerous and well-recognized.

[2] After a brief but intensive survey, the Commission promulgated on Aug. 3, 1921, its Tentative Plan of Consolidation, 63 I.C.C. 455. It includes several alternative groupings for each region.

[3] The principal consolidations approved by the Commission have been of Western and Southwestern lines. Probably the most important one was the Missouri Pacific merger, 90 I.C.C. 262; 94 I.C.C. 191 (1924). Others are: control of Central Pacific by Southern Pacific, 76 I.C.C. 508 (1923); the original Nickel Plate merger, 79 I.C.C. 581 (1923); and acquisition of Kansas City, Mexico and Orient by the Santa Fé, 145 I.C.C. 350 (1928).

preceding paragraph. The practical realization of the nominal privilege of consolidation is entirely dependent upon the attitude adopted by the Interstate Commerce Commission, and the readiness of railroad executives and financiers to meet the Commission's views of what is requisite to satisfy "the public interest" in these moves. So far, the railroads and the Commission have not evinced any striking eagerness to find a common ground for action. What the Commission seems to regard as advisable in this matter, the railroads regard as impracticable. And what the railroads have proposed as feasible, the Commission has generally disapproved and sometimes denounced.[1]

The Merchant Marine Act of 1920

In the same year that the Transportation Act was adopted, Congress passed an Act known as the Merchant Marine Act, supplementing the Shipping Act of 1916, and in several respects amending that legislation. By Section XXIX of the Merchant Marine Act, marine insurance companies are permitted to form combinations for the following specified purposes: "To transact a marine insurance and reinsurance business in the United States and in foreign countries and to reinsure or otherwise apportion among its membership the risks undertaken by such association or any of the component members." It was provided that the combination might be in the form of an exchange or a pool or any other arrangement for concerted action. This clearly comprehends corporate consolidations to an unlimited extent among such companies for the exercise of such powers as are sanctioned by their charters. This is a very broad exemption, fully comparable with those granted export associations and agricultural coöperative associations under the anti-trust laws. It goes far beyond the scope of combination authorized among railroads by the Transportation Act or among steamship lines by the Shipping Act of 1916. In both of these latter instances the agreements and consolidations authorized by Congress were made subject to the approval of an administrative board. Marine insurance companies, on the other hand,

[1] See Nickel Plate unification, 105 I.C.C. 425 (1926); and Chesapeake and Ohio merger, 138 I.C.C. 517 (1928). The first plan was rejected entire. The modified plan was conditionally authorized as to the acquisition of the Pere Marquette, but permission to absorb the Erie was denied.

are granted an absolute exemption by the Merchant Marine Act of 1920. No qualifying phrases or conditions were attached to the privilege accorded them.

The Packers and Stockyards Act of 1921

The Packers and Stockyards Act of 1921 does not represent any exemption or relief from the prohibitions of the anti-trust laws to those businesses which are subject to its provisions. It simply makes certain changes in the administration of those laws in the fields to which it especially applies, as indicated by its title. There are two main divisions of the Act. Title II, so called, applies to packers alone. Title III applies to stockyards, including the commission merchants, dealers and packers' agents who normally transact business in these markets. The effect of Title II may be very simply stated. It does no more than transfer the packers from the jurisdiction of the Federal Trade Commission to the jurisdiction of the Secretary of Agriculture, so far as the enforcement of the substantive provisions [1] of the Clayton Act and the Federal Trade Commission Act are concerned.[2] These are Sections II, III, VII, and VIII of the Clayton Act and Section V of the Federal Trade Commission Act, and their general purport is to condemn unfair methods of competition. No regulations made in this respect were new or different from those to which the packers were already subject under existing law. But parties subject to regulation under Title III of the Act were subjected to a much more vigorous administrative supervision than any to which they were previously amenable. The law recognized that stockyards are public utilities, and it made every such marketing facility over a certain size subject to its provisions.

The Capper-Volstead Act

The most recent legislation by which Congress has manifested its continuing disposition to remove various economic classes and business

[1] Substantive provisions of law are those which embody specific rights and duties. The Clayton and Federal Trade Commission Acts establish certain duties incumbent on business enterprises. These "duties" also constitute "rights" of the public. — The Editor.

[2] See U.S. Department of Agriculture, Report of Packers and Stockyards Administration, 1924, page 19.

groups from the rigid restrictions of the Sherman Act is the Capper-Volstead Act of 1922. This law authorizes persons engaged in the production of agricultural products to organize associations which are commonly referred to as coöperative marketing associations. It is required that these associations must be on the mutual benefit plan, conforming with the following principles: one member, one vote, regardless of stock holding; limitation of dividends of share capital to 8 per cent; the major portion of the business to be done for members. The Secretary of Agriculture was given the power to determine whether the practices of any such associations tended to constitute a monopoly or to restrain trade.

That the combinations authorized by this statute to act as joint sales agencies for their members would be in violation of the Sherman Act if formed among producers in non-agricultural industries, cannot be doubted. Yet it appears that such coöperative marketing organizations might gain control of the entire supply of important agricultural products and might, for a time at least, exact a monopolistic price. Indeed, they are specifically authorized to sell the goods under their control for such prices as they deem satisfactory. But even where the entire output for a season comes under the control of a coöperative marketing agency, there remains an effective check upon exorbitant prices through the liberty of every member to produce in such quantity as he chooses. Moreover, in the case of farmers this liberty is not only nominal but real. They are so numerous and so scattered that concerted action to limit supply, which alone could give a power to exact a genuinely monopolistic price, is impractical and ineffectual. Experience has demonstrated that in practical circumstances the chances of collusive action in this direction are remote.

The Coöperative Marketing Act of 1926

As evidencing the continuing purpose of Congress to foster coöperation in agriculture may be mentioned the enactment of the Coöperative Marketing Act of 1926. This Act is not concerned in any way with the regulation of the activities of coöperative organizations. It created a division in the Department of Agriculture to provide for the dissemination of information pertaining to coöperative marketing and to advise and assist those responsible for the management of such associations.

Moreover, in an amendment to the Capper-Volstead Act, passed in 1927, boards of trade whose members are engaged in buying and selling agricultural products were forbidden to exclude from membership any duly authorized representative of a coöperative association formed in accordance with the provisions of the Federal or state statutes.

The manifest tendency running through all the legislation which has been reviewed in this chapter has been toward the liberalization of the anti-trust laws as applied to different groups in the business community. It has been shown that a very large sphere of coöperation and united action has been opened by means of legislation for banks, shipping companies, export associations, railroads, insurance companies, and agricultural coöperative associations. That this list represents the extreme limits to which Congress may find occasion to extend special consideration under the anti-trust laws seems highly improbable. It has been shown that the process of exemption has been gradual, and in response to the demonstrated needs of various groups. It is altogether likely that other groups may, from time to time, be accorded like privileges. For example, a bill was introduced in the Seventieth Congress authorizing the coöperation of American manufacturers in buying their supplies of raw materials abroad.[1] This bill received the endorsement of Secretary Hoover, and, in fact, it has been largely upon his initiative that the movement for legalizing united action in this sphere has developed.

This record of Congressional action, considered in conjunction with the trend of the decisons of the Supreme Court under the Sherman Act, evinces a decided trend away from the rigid prohibitions under the anti-trust laws as they were enforced prior to 1910. That the relaxation in the public policy toward trade organization, thus manifested, has met with popular approval is clear from the continued developments along this line, particularly in Congress, which presumably reflects public opinion more closely than do the courts.

It is believed that this relaxation in public policy should not be interpreted as an approval of monopoly, however. It has been shown that in those instances in which the law has explicitly authorized extensive consolidations and pooling agreements, as in banking, the shipping trade, among the railways, and among coöperative marketing associa-

[1] U.S., 70th Congress, 1st Session, H.R. 8927.

tions, it has made them subject to administrative approval, and to continuous, detailed supervision by some appropriate Federal agency. This clearly shows that the dread of private monopoly has not abated. Where economic considerations seem to require a greater centralization of control and closer integration of business units, such action has been sanctioned only after adequate safeguards have been provided against the abuse of the power which occasionally results therefrom.

The underlying philosophy of the Anti-Trust law

The underlying philosophy of the Sherman Anti-Trust Act may be stated very simply. It aims to protect society from economic oppression. It seeks to realize this end by keeping alive competition. But it does not enforce a "war of all against all." It does not require the conduct of business by the minutest conceivable units. It does not command each individual to seek economic advancement solely by the independent use of his own resources. It permits groups of individuals to fund their resources or to act together for their common enrichment and mutual protection. But when resources are thus joined, or concert is thus established, the anti-trust laws recognize the danger that a power may be acquired to control markets and oppress consumers. Accordingly, legal limits are interposed to protect the community from the abuses to which such a power in private hands might give rise. What are these legal limits? Broadly stated, and bearing in mind that we speak here only of the fundamental rule adopted in the Sherman Act, it may be said these legal limitations amount simply to the prohibition of the suppression of competitive conditions in any market.[1] The anti-trust law forbids any action or agreement which has a tendency, or actually operates, to preclude the entrance of new enterprises into a field of business or to deprive any going concern of a fair opportunity to secure the patronage for which it bids.

It is evident even from this statement, in broad outline, of the theory of the anti-trust law that the policy it sets forth rests, at bottom, upon an implicit trust in the beneficence of competition. It involves the assumption that freedom of enterprise or liberty of trade, within the limits above defined, will ensure the public against negligence and wastefulness

[1] That is to say, in interstate commerce. — The Editor.

in production and against overreaching and chicanery in trade. How will this be accomplished? By the spur of rivalry for profits, efficiency will be fostered; and by the salutary check of competitive bidding for patronage, fair prices will be maintained. This is the theory.

Is the faith implicit in this policy of the law justified by economic experience? One factor bearing upon the answer to this question is the extent to which the statute itself has withstood the ravages of time. A law that rests upon an empty faith cannot long survive. One of two eventualities is most certain to befall it: either it will become "a dead letter," i. e., be ignored, or it will be annulled, perhaps by repeal, perhaps by an emasculating amendment or series of reservations. Has either of these things occurred to the Sherman Act? Let us consider, first, the second possibility, since the material for weighing this possibility has just been reviewed.

The question to be considered is how important and how extensive are the legislative qualifications upon, and exemptions from, the prohibitions of the anti-trust law. . . . It has already been observed that, with one minor exception, every effective exemption granted in the fifteen years since the amendment of the Sherman Act has become more or less of a legislative habit, has been made upon the condition that the interests exempted shall be subject, at least in respect to the activities thus affected, to the supervision and regulation of some governmental administrative agency. The fact that there was already available, or else was specially created, some appropriate regulatory body to which could be given the responsibility for preventing abuses of the privilege accorded by these amendments is of the utmost significance. It shows that the need of special regulation of these particular business interests has been recognized. The occasion of this need will be found in almost every instance to spring from the peculiar character of the industries concerned. With the exception of the interests affected by the Webb-Pomerene Act and by the Coöperative Marketing laws (including the Capper-Volstead Act), all of the businesses in any way relieved from the prohibitions of the anti-trust laws have been of the class "affected with a public interest." Railroads, telephone companies, express companies and stockyards have long been recognized as public utilities. If banking, marine shipping and insurance are not quite so definitely and wholly in the same category, they

have nevertheless been treated as enterprises affected with a public interest in many ways; and they were so treated for many years prior to their partial and conditional exemption from the anti-trust laws.

That there has developed a settled policy of Congress to withdraw public utilities from the prohibitions of the Sherman Act, or even that in more than one or two instances Congress has consciously dealt with a proposed exemption on the theory of special treatment for public utilities, it is not the intention here to suggest. Indeed, the very fact that in two of the above-mentioned spheres conditional exemption has been extended to groups which have none of the characteristics of public utilities shows conclusively that Congress has not been guided in this course of legislation by any broad and fundamental principle. The opposite has undoubtedly been the case. These statutory modifications of the policy of the Sherman Act have been a manifestation of little more than legislative opportunism. This is unfortunate, for at least in one instance the exemption strikes at the very root principle of the anti-trust law by opening up to business enterprises of every description, and in every industry, a privilege in respect to one phase of their operations, i. e., foreign trade, that is stringently forbidden them in every other phase of their operations. The incompatibility of the exemption and the prohibition is manifest, and in the long run, one rule or the other must give way — in practice, if not in legal theory.

Notwithstanding the just criticism to which some features of the anti-trust law amendment policy of recent years appear to be open, it remains true, on the whole, that willy-nilly we seem fairly on the way toward a clear-cut, logical policy of granting conditional exemption from the rigid prohibitions of the law to industries "affected with a public interest," and to these only. That such a policy, if adhered to, would be sound and expedient is clearly the lesson of experience. The fact that the amendatory legislation of the past fifteen years has taken the direction that, in the main, it has taken, may be regarded as a corroboration of this conclusion.

XVI. LABOR COÖPERATES WITH CAPITAL, BUT REFUSES COMBINATION [1]

By William English Walling
Publicist and Author of Various Works on Labor

"Employee representation," "shop unions," and the varied plans of labor organization under employers' direction which go by the name of "industrial democracy" and "plant councils" are alike in this — that in putting an end to the labor problem they would, if sufficiently successful, put an end to the labor movement.

There are now thousands of "company unions" in existence where there were hundreds before the war. "Employee representation" has spread so rapidly of late — together with group insurance of employees by employers and a more scientific management and better treatment of the labor force — that a large part of the public has concluded that these new employers' policies have marked out the final limit to the labor movement, and that the labor unions are destined to play a steadily less and less important part in society.

"Organized labor's danger," says a leading newspaper, "is in its own success. It has taught, not altruism, but enlightened selfishness to many employers, and several of the largest industries are not unionized *because they grant collective bargaining, high wages, and an elaborate system of benefits to their employees.* But sincere union leaders, men who are not merely ambitious for their own power and profit, will contemplate such competition with satisfaction rather than regret. *And unionism, though it will not have in the future as important industrial and social functions as in the past,* has still a wide field of service and a powerful influence." [2] (My italics.)

Let us see what organized labor thinks about this. When employers say they accept "the principle of collective bargaining" but refuse to con-

[1] Reprinted by permission of Messrs. Harper and Brothers from *American labor and American democracy*, by William English Walling, Harper and Brothers, 1926, vol. II, pages 29–47.

[2] Chicago *Tribune*, October 7, 1925.

cede to labor the free right "to choose its own representatives," they expose the foundation of their so-called employee representation. American employers as a whole "accepted" collective bargaining after President Wilson's First Industrial Conference in 1919. Yet the right of labor in each plant to elect representatives of its own choosing was denied by the employers' delegation at this conference — though it had been granted two years previously (during the war) to millions of wage-earners by the United States government acting through the War Labor Board. The government recognized and affirmed "the right of the workers to bargain collectively through chosen representatives." The right was widely defended also by the press, by educational authorities, and by church organizations, as well as a few important bodies of employers, such as the New York City Merchants Association and the New Jersey Chamber of Commerce. It was also definitely recognized by the United States Railway Labor Board in its decision in April, 1921, in the following very explicit language:

> The right of employees to organize for lawful objects shall not be denied, interfered with, or obstructed.
>
> The right of such lawful organization to act toward lawful objects *through representatives of its own choice*, whether employees of a particular carrier or otherwise, shall be agreed to by management.
>
> The majority of any craft or class of employees shall have the right to determine what organization shall represent members of such craft or class. Such organization shall have the right to make an agreement which shall apply to all employees in such craft or class. No such agreement shall infringe, however, upon the right of employees not members of the organization representing the majority to present grievances either in person or by representatives of their own choice.[1]

The board buttressed its decision by a body of rules securing the position of the unionists and protecting the employer. The rule against discrimination is typical:

> No discrimination shall be practiced by management as between members and non-members of organizations, or as between members of different organizations, nor shall members of organizations discriminate against non-members or use other methods than lawful persuasion to secure their membership.[2]

[1] From the *National labor digest*, May, 1921.

[2] *Ibid.*

This decision was so wholly in accord with the labor view that the Executive Council of the Railway Department of the American Federation of Labor, representing half a million organized workers, indorsed it without qualification:

> This decision of the Labor Board will not only have a very strong and beneficial effect upon the transportation industry, but it will mark the real beginning of industrial law, so to speak, and of a code of principles which will be used as a basis of procedure in all our basic industries.
>
> It is the most courageous and forward-looking decision that we have so far had in this country from a governmental tribunal in the development of a correct basis for industrial relations and conditions.[1]

Moreover, President Wilson's Second Industrial Conference, which met in January, 1920, definitely endorsed the right of "unrestricted selection of representatives by employees" recommending provisions for fair elections in order that the majority of the employees might be represented.

President Wilson's Second Industrial Conference, it may be admitted, undertook a very serious study of the labor problem. Labor protested against its personnel, which included only one wage-earner — the chairman, Secretary of Labor William B. Wilson — while it embraced a number of employers and persons closely associated with employers. Nevertheless, the membership was composed of persons of exceptional information and capacity. If it represented the employing class, it represented the more progressive wing. Herbert Hoover, while himself a lifelong associate of big business, brought it, besides his unquestioned humanitarianism, the scientific engineering spirit.

The sharp contrast between the findings of this liberal though capitalistic commission and the position of organized labor may be seen in the basic demand of the commission for "*the organization of the relationship between employer and employee.*" This is undoubtedly an accurate definition of the underlying aim of all reforming employers — as well as many other non-labor reformers. Labor, on the contrary, desires first of all *the organization of labor.* It is willing and eager that the other social groups and interests should be organized, and it believes all groups should *then* be brought together. This labor view, indeed, is very close to a view

[1] From the *National labor digest,* May, 1921.

put forward by Mr. Hoover himself when he advocates the organization and coöperation of all industrial and commercial interests and groups, including labor.

The Second Industrial Conference, however, indorsed the very opposite principle to voluntary coöperation, namely "employee representation," under the name of representative government in industry, shop committees or works councils.

It is not to be wondered at, therefore, that organized labor rejected the findings of this industrial commission, without referring to its important beginnings of broad, constructive thinking on the labor problem. President Gompers presented labor's verdict:

> In industries where the employees are not organized, no machinery of any kind, whether supervised by governmental agencies or otherwise, can produce industrial justice. Organization of the workers is the fact upon which must be predicated the existence of any machinery for the settlement of disputes or the extension of the principles of democracy in industry. Unavoidably, organization of independent shop units of employees is a menace to the workers, for the reason that it organizes them away from each other and puts them in a position where shop may be played against shop.[1]

The issue is here clearly defined. Organized labor believes that the shop organization of labor should be a part of the labor organization of the entire industry, which, in turn, should be a part of the labor movement as a whole. The employers, on the contrary, regard the shop organization as a part of the organization of the establishment and of the corporation or industrial unit. With hardly an exception, employers are unwilling to give their "employee organization" the right to function as a part of the labor-union movement. In explanation of the labor standpoint Gompers continued:

> There can be no objection to the closest relations of coöperative nature between employee and employer in the shop, but these relations must never take on such a form as to separate the workers in that shop from the rest of their fellow workers in the industry.
>
> Furthermore, trade-union organization includes organization within the shop and offers the fullest opportunity for coöperative relations between the workers in the shop and the employer. There is no limit to which good relations

[1] Samuel Gompers in press of March 19, 1920.

between employees and employers may be developed through the agencies provided by the trade-union movement.[1]

The very essence of the so-called "employee representation" is that the employees of one concern shall not act in unison with the employees of any other concern — in a word, that employees shall not be free to have "representatives of their own choosing" — which is precisely the *sine qua non* of organized labor. The plan as stated by the Pennsylvania Railroad is as follows:

> The management deals collectively with the men through employee representatives.
>
> Any employee can belong to any union he desires. No employee is disqualified to vote, to be nominated, or to be elected because he happens to be a member or officer of any organization.
>
> The management simply insists upon dealing with the employees themselves through employee representatives *and not with representatives of absentee organizations to which they may belong.*[2] (My italics.)

The employer, by this device, not only deals with a smaller instead of a larger organization, but he deals with wage-earners instead of wage-earner experts; he deals with those under his power, and he treats with a body that, as a body, knows nothing of alternative employment in other concerns and is unfamiliar with the conditions of the entire industry and the labor market as a whole.

Naturally the employer would prefer to deal directly and solely with his own employees without any such formidable body as a labor union or the labor movement behind them. But the balance would not be equal. The manufacturer has with him not only all the manufacturers involved in the Manufacturers' Association, but the Chambers of Commerce and capitalistic and financial interests generally.

The most famous of the employee representation plans, the Industrial Republic, organized in the Colorado Fuel and Iron Company by John D. Rockefeller, Jr., Mackenzie King, now Premier of Canada, and others, has recently been the subject of a thoroughly scientific report. Here are some of its most important conclusions:

[1] Samuel Gompers in press of March 19, 1920.

[2] "Employee representation of the Pennsylvania Railroad." — Leaflet issued by the railroad.

The company and employees must be equally represented when action on a dispute of this kind (relating to wages and conditions of employment) is taken, and the decision of the majority is binding. These provisions, however, all relate to the settlement of grievances. They do not insure a share in determining conditions before grievances occur, and hence, perchance, preventing them. *Nor do they insure any share in determining standards for the industry as a whole.*

Basic wage rates have not been within the scope of negotiations through the plan. Competitors' rates are accepted by the company as its own, and nowhere is the "competitor" defined.

The employees' representatives are ill prepared to be advocates for the miners, as was pointed out by a number of men. They explained that they had to work hard in the mines; many of them were uneducated; they had no time to read. What match were they for the educated, experienced executives of the company before whom they must advocate the interests of the men? [1] (My italics.)

Employees' representatives chosen in this way are not only ill prepared; they are subject to discrimination and discharge.

William Green, president of the American Federation of Labor, points out that the job of representing a group and of promoting their interests is in a very real sense a technical calling requiring special experience, education, and character. It is for this reason, and because any employee representative who showed independence would be subject to discrimination or dismissal, that organized labor not only refuses to accept the "company union," but opposes it. President Green says of the report just quoted:

It shows that the employee representation plan has not taken root in the industrial life of the Colorado Fuel and Iron Company and become a real economic agency; the men do not voluntarily take part in the election of their "representatives"; few difficulties are referred to the council for adjustment; men do not expect or get from their "representatives" maintenance of rights or increasing benefits; not even wages or hours are determined by these agents.

It isn't their organization but the instrumentality of the company with which it originated and which in reality controls it. It gives the workers no guaranty of stability of employment if they manifest any initiative for self-interest or on behalf of their group even as prescribed by the company.[2]

[1] *Employees representation in coal mines*, by Ben M. Selekman and Mary Van Kleeck, in the "Industrial relations series" of the Russell Sage Foundation.

[2] *American Federationist*, March, 1925.

In fact, there remains no doubt as to the underlying motive of the overwhelming majority of the company unions, employee representation plans, and shop committees. As we read in the *American Federation of Labor Weekly News Service*:

> The National Industrial Conference Board is investigating the company "union."
>
> The board is composed of a score of manufacturers' organizations, including the most anti-union in the country.
>
> In its questionnaire the board says:
>
> "We want in particular to know to what extent in your experience works councils and similar forms of employee representation have been introduced or managed as a device for offering trade-unionism in the plant?"
>
> This, in a few words, is the reason for the company "union."
>
> Can it offset trade-unionism? is the question these employers would like answered.
>
> This is the first time opponents of organized labor have frankly told why they favor the company "union."
>
> This, in itself, is a gain. The issue is clarified by the admission of union foes.[1]

President Green argues for the maximum of coöperation of the unions with employers and agrees that this requires shop organization. But he says that only those shop committees formed under labor-union direction can satisfy labor and give the maximum of coöperation, and he refers to the Baltimore and Ohio Railroad and the shipbuilding plants for example.

Employee ownership and employee representation may, in this form, constiture the first step in constructive progress. But they are being promoted both by employers and by certain social reformers as something altogether beyond that, namely, as a panacea for social conflict and as a substitute for voluntary labor organization. The Pennsylvania Railroad triumphantly quotes in defense of its plan the following paragraphs from a Pastoral Letter of the American Catholic Hierarchy:

> While the labor-union or trade-union has been, and still is, necessary in the struggle of the workers for fair wages and fair conditions of employment, we have to recognize that its history, methods, and objects have made it essentially a militant organization.

[1] *American Federationist*, April, 1926.

The time seems now to have arrived when it should be, not supplanted, but supplemented by associations or conferences, composed jointly of employers and employees, which will *place emphasis upon the common interests rather than the divergent aims of the two parties, upon coöperation rather than conflict.*

In a word, industry would be carried on as a coöperative enterprise for the common good, and not as a contest between two parties for a restricted product.[1]

There is here an incomplete description both of organized labor and of "employee representation." *Organized labor does not deny or undervalue common interests merely because it recognizes divergent interests.* Nor does coöperation between employers and employees *necessarily* mean cooperation for the common good. On the contrary, it has sometimes meant collusion against the common good, and the consumer has no protection comparable with what he has when the owner and the worker are not combined.

The more carefully these employers' plans for employees are examined, the more certain it will become that, if successful, they are likely to be paid for in large part by the consumer and the public. When they do make a bid for the support of the public as well as the employee, it is the public as an investor and not the public as a consumer. For example, there is no industry in which more consumers are more deeply interested than the coal industry. It was the coal consumers who chiefly caused the appointment of the United States Coal Commission, whose final report favoring the consumer was not published until two years after its preliminary report, because of employers' opposition. Some of the more advanced employers in this industry try to coöperate with employees and to interest the public as investors in the coal business — but without a word as to the consumer. If we did not note that the consumer is omitted from the reckoning, the following employers' proposal might seem almost like a panacea: "Is it not time for us to decide whether the opinion that any business should be owned and operated entirely in the interest of those financially concerned should give way to the position that, in order to be entirely successful and avoid all disputes and lack of coöperation, a business of whatever size and kind must be considered as a combination between those financially interested, i. e., productive labor

[1] From Pastoral Letter of the American Catholic Hierarchy.

and the management that directs the disposal of capital invested, the labor used on production, and the sales of the product?" [1]

If organized labor were converted to this doctrine and if it were put into effect, the result might or might not develop ultimately into a form of social progress. But certainly it would not be progress along the democratic road American labor is now traveling. It would amount either to a reversion to capital-and-labor combinations against the community, which were far more prevalent a generation ago than they are today, or to an advance, not toward industrial democracy, but toward a capitalistic form of syndicalism or guild socialism.

The development of the American labor movement is away from any thought of combination with employers against the consuming public, toward an appeal to the public to join labor in reducing profits within reasonable limits — in order that wages may be raised and prices lowered. American labor is moving away also from employee representation under the aegis of the employer, toward occupational or economic representation for labor and for every producing group with the support and approval of the state, that is, the industrialized and democratized state that is now coming into being.

The official organ of the American Federation of Labor for January, 1921, reprinted — evidently with approval — an address of Herbert Hoover's in which he declared:

> There has been a great increase in shop committees as a method of organization. Where they have been elected by free and secret ballot among the workers, where they are dominated by genuine desire on both sides for mutual coöperation in the shop, they have resulted in good.
>
> Organized labor has opposed some forms of these committees because of the fear that they may break down trade organization covering the area of many different shops.
>
> There would be little outcry (from employers) against the closed (union) shop if it were closed in order to secure unity of purpose in constructive increase of production by offering to the employer the full value of the worker's mind and effort as well as his hands.[2]

In advocating the *union* shop committee under these conditions Secretary Hoover took a position almost identical with that of organized labor.

[1] From *The coal industry, labor and the public*, page 125.

[2] Speech of March 24, 1920.

I quote Secretary Hoover not merely as representing an influential and a comparatively advanced employer's view, but as indicating the conclusions inevitably reached by the well-informed expert. He proceeded to outline the constructive policy that has since been partly carried into effect by the Baltimore and Ohio Railroad:

> The solution of the industrial problem is not solely the prevention of conflict and its losses by finding methods of just determination of wage and hours. Not only must solution of these things be found, but, if we are to secure increased production and increased standard of living we must awaken interest in creation, in craftsmanship, and in contribution of intelligence to management. We must surround employment with assurance of just division of production. We must enlist the interest and confidence of the employees in the business and in business processes.[1]

The Baltimore and Ohio Railroad, under its liberal and far-sighted president, Daniel Willard, has developed a labor policy in sharpest contrast to that of the Pennsylvania Railroad. It has favored the organization of shop committees — under the railroad shop unions — and has evolved, together with the unions, an entirely new plan of union-management coöperation corresponding largely to the principles laid down by Hoover. Adopted by several other railroads before it was two years old, and indorsed by all the labor unions, radical and conservative alike, this experiment has now become the classical illustration of the possibilities of shop committees and genuine "employee representation" *under the labor unions*. The labor-union inception of this plan is best described in the words of President Willard himself:

> Some weeks before the railroad strike of 1922, Mr. W. H. Johnston, president of the Machinists Union, and Mr. O. S. Beyer, Jr., an engineer of high reputation and broad experience, called at my office in Baltimore and said that they would be glad to coöperate with the officers of the company in an attempt to develop a plan under which the workmen in the shops might coöperate in greater degree toward improving the efficiency of the operations. Such a suggestion coming from such a source was most unusual; in fact, was unique in my experience. However, the suggestion was accepted in good faith and a plan had been worked out to put it into effect some weeks before the beginning of the strike of the shopcrafts in 1922. After the strike had been settled and things had begun to move again in a more normal manner, discussion of the subject

[1] Secretary Hoover in speech of March 24, 1920.

of coöperation was renewed and arrangements were made to give the plan a trial at our Glenwood shops located near Pittsburgh.

I wish to make acknowledgement of the effective coöperation which we received from the very first from the men chosen to represent our employees, as well as from the grand officers of the respective unions. Before a very long time had elapsed we could see that we were also beginning to get the earnest coöperation of the men themselves. After the experiment had been running a year, it was decided that there was at least enough merit in the plan to justify its extension to the principal shops all over the Baltimore and Ohio system.

An arrangement was signed on February 25, 1924, and by the time it had been in effect only eight months President Willard reported that 657 shop meetings had been held, that more than five thousand suggestions had been made to the company — and that more than two-thirds of them had been accepted — the reason for the high proportion being that the men were advised at every point by their own engineers serving under Mr. Beyer.

At each locality where there are Baltimore and Ohio shops, the local chairman of the shop committee of each local union meets with representatives of the management every two weeks. Every three months (more often when necessary) the "general system chairmen" of the various unions meet with the general mechanical officials of the railroad at Baltimore. And, finally, we have "employee representation" of all the shop employees of the Baltimore and Ohio system in the annual or biannual convention of the Federation of the union employees in all mechanical branches.

The president of the Railroad Department of the American Federation of Labor, Mr. Bert M. Jewell, has summed up the foundation of the plan in four points:

First: That management must grant and agree to full and cordial recognition of the *bona fide* trade-union.

Second: That management extend to these *bona fide* trade-unions and their representatives constructive, as well as protective, duties and responsibilities in the operation of the railroad.

Third: That management and these trade-unions, upon this basis and in this spirit, agree to coöperate.

Fourth: That management agree to share fairly with these workers, and to negotiate same through these trade-unions, the results of their joint efforts.[1]

[1] *American Federationist,* June, 1925.

Mr. Jewell points out that both sides have gained and that neither has lost anything under this arrangement:

These coöperative committee meetings do not have authority to decide questions. Management representatives retain the authority and responsibility of operating the railroad.

The employees have not surrendered any of their rights, authority, or power — they have strengthened the hold on that which they had attained; they have enhanced their opportunity and increased their power to *more fully protect their original investment* (i. e., their labor) and secure a more adequate return thereon. The management has not surrendered any of its rights, authority, or power.[1]

The engineer largely responsible for the plan, Mr. O. S. Beyer, gives us a glimpse into the importance and the wide variety of the subjects discussed in these coöperative meetings when he classifies them under the following illuminative heads:

Job analysis and standardization. Better tools and equipment. Proper storage, care, and delivery of material. Economical use of supplies and material. Proper balancing of forces and work in shops. Coördinating and schedule of work through shops. Improving quality of work. Conditions of shops and shop grounds, especially in respect to heating, lighting, ventilation, safety, etc. Securing new business for the railroad. Securing new work for the shops. Stabilization of employment.[2]

Leaving *financial control and management* to be checked and supervised by some "public agency," this Baltimore and Ohio plan opens the way to the natural evolution of union coöperation with *production management*, in a field — the shop itself — where there is little temptation for, or possibility of, combination of capital and labor against the public. Its popularity with all unions and its indorsement by the 1925 convention of the American Federation of Labor demonstrate once more that it is a fundamental purpose of labor organization to promote coöperation with management — and especially through union shop committees and genuine voluntary employee representation.

American labor has shown its readiness to coöperate with employers fre-

[1] *American Federationist*, June, 1925.
[2] *Ibid.*, August, 1925.

quently in the past.[1] Labor's enthusiasm for this more scientific and thorough plan of coöperation adopted by the Baltimore and Ohio Railroad does not mean, any more than those previous experiments in cooperation, that the unions are ready to dissolve and abandon their function of bargaining with employers, or that labor has lost its identity in a partnership with capital, or that labor has become capitalistic — at least not in the usual sense of that word.

Like the other new developments, such as labor insurance, labor banks, and "employee ownership," labor-management coöperation brings labor *closer* to capital and to industry. But that does not necessarily mean that labor organization is being *absorbed* by capital, even to the smallest degree. The unions believe, on the contrary, that closer coordination makes labor organization at once more efficient and more powerful, more valuable to the industry and *more useful and necessary to the wage-earners — and not merely as small capitalist owners.* If organized labor is "passing over to capitalism" it is passing over, not to the present

[1] I have concentrated attention on the Baltimore and Ohio plan partly because of the need to economize space, partly because it is the most important, recent, and significant of organized labor's experiences in coöperation with management. But it is in no sense isolated as a demonstration of organized labor's willingness and ability to coöperate or of its use of its own experts to make coöperation efficient. Nearly all the so-called wage agreements, such as those with the Typothetae and with the newspaper publishers, have contained numerous clauses providing for coöperation, and these agreements have been in practical working effect for decades. But the place to describe them would be in a history of collective bargaining.

One further illustration may be mentioned as showing that the tendency of labor to employ experts to aid the industry is not limited to the Baltimore and Ohio experiment. The Printing Pressmen, under the presidency of George L. Berry, have established an Emergency and Production Department which provides a service to the newspaper industry of America at the expense of the union. This department, which is connected with the union's technical school, maintains a staff of expert engineers familiar with newspaper production and an office for giving information and advice to those engaged in the newspaper industry. Six hundred daily newspapers are examined and their defects are "noted and filed for monthly references." These are sent to the newspapers accompanied by a proposed remedy. "If in the course of sixty to ninety days the remedy is not applied, then one of the engineers of this department is sent to the city and into the pressroom of the newspaper in question and the remedy is applied."

The department is now frequently called upon by newspaper publishers "to pass upon the subject of machinery and processes, to lay out pressrooms, to pass upon architects' plans." — *American Federationist,* February, 1926.

oligarchic capitalism, but to a capitalism so thoroughly democratized that it will doubtless bear some other name.

Organized labor does not believe that either the conclusive demonstrations it has given of the sincerity of its plea for good will, coöperation, and greater efficiency in industry, or the proofs it has offered of its capacity to put coöperation into practical effect, will overcome employers' resistance to labor organization and its implications. Too many employers and corporations are receiving a large part of their incomes from unearned and excess profits — as distinct from their services to industry. Labor believes that the element that leads the resistance to its demands, both for a progressively higher share in the product and for a progressively larger share in the control of industry, is these "profiteers," and that there is little prospect that they will yield anything either of their illegitimate profits or their arbitrary power — except under economic or social compulsion:

> The trade-union movement (labor claims) seeks the highest possible development of our industrial life. What is necessary to understand is that the highest aggregate productiveness is dependent upon the full release of a good will and initiative by removal of repression and arbitrary control in industry. This is the function of management, with the coöperation of the workers in their organized capacity. *The chief obstacle is found in financial forces which control industry from the primary point of view of speculation and dividends.*[1]

[1] Samuel Gompers in Wheeler Newspaper Syndicate, September 3, 1922.

XVII. THE GOVERNMENT OF INDUSTRY[1]

By William English Walling
Publicist and Author of Various Works on Labor

The labor unions, an organized democratic factor within industry, could scarcely have failed to develop a policy looking toward the democratic organization and government of industry. That policy would naturally emphasize the importance of *labor* in industry, of *industry* in the social structure, and of *democratic political government.*

Organized labor will undoubtedly contribute largely to shaping the political government of the future, but it will contribute still more largely to shaping the industrial government.

In developing its ideas of industrial government, American labor does not aim at any political goal and is not under the influence of any political theory. Its industrial policy and ideals are drawn directly from its experience in industry. And, first of all, of course, from its experience in the organization of industrial labor.

In the labor-union view the organization of labor is, in itself, a primary and important step in the democratization of industry. As President Gompers said:

> The agreement (the labor union contract with the employer) is the channel through which labor pours into industry its greatest effort, its most intelligent effort, its constructive thought. But more than that, it is the document through which complete revolution is wrought in the conduct of industry. From the moment in which workers and employers negotiate and agree upon terms, hours, conditions, and wages, the principle of autocratic domination gives way to the principle of democratic operation.

Organized labor works for the constant *extension* of this beginning of democratic government in industry. Here is the point of departure, and the unions do not advocate any theory or Utopia or any revolutionary

[1] Reprinted by permission of Messrs. Harper and Brothers from *American labor and American democracy*, by William English Walling, Harper and Brothers, 1926, vol. II, pages 82–90; 94–102.

principles except those that grow by a natural process of evolution out of its experience in regulating terms and conditions of employment in the workshop:

> The trade-union movement, in coöperation with employers, has worked out machinery for the handling of industrial disputes and for the prevention of industrial disputes. This machinery, being the product of the normal and natural function of labor in its organized capacity, must stand and does stand as the proper and practical machinery for this purpose. *In its creation there has been expressed the sum total of the wisdom and experience of the industries in which it is applied,* and it is safe to say that there is within any given industry a greater knowledge concerning the operation and the needs of that industry than can be brought to bear from any outside agency. It is a matter of record that the machinery erected by organized labor in coöperation with the employers has enabled some industries to continue without interruption, without strike or lockout, for as long as forty years. As specific examples there may be cited the glass-bottle blowers, the stove molders and the newspaper printing trades. *The trade-union movement insists that there must be a constant extension of the principles of democracy in industry, but it contends that the practical application of this principle must be worked out within the industry itself.*[1] (My italics.)

Having laid the foundations of industrial democracy through settlements of wages and labor conditions by "collective bargaining," organized labor proceeds to work for the gradual enlargement of its functions.

> Labor now participates more fully in the decisions that shape human life than ever before, and more fully in America than in any other nation on earth; but our participation must be gradually brought to completion. *The purpose of this is not only the commanding of better wages and better conditions of work, vital as those are and have been.* The purpose that now unfolds is broader and nobler and filled with deeper meaning.[2] (My italics.)

Labor works to extend its sphere of action in two ways: it sets up an ideal, and it specifies the first steps toward that ideal. It sets up an ideal of industrial democracy — the very reverse of a selfish partnership of capital and labor. But this is an ideal; that is, it is a goal to be approached by degrees and by the natural processes of evolution, and it becomes sharply defined only in proportion as it is approached.

At present this "industrial democracy" is purposely defined only in

[1] Reply of American Federation of Labor to the questionnaire of the Republican Advisory Committee, 1920.

[2] Convention of American Federation of Labor, 1923.

broad and general terms. But some of its features are already clear. It is clear that labor recognizes that every useful element in society has its rightful claim to a share in the product and in the control of industry. Capital — or a part of capital — resists the fulness of these claims. Labor in fighting for itself must fight at the same time for all other useful citizens.

American labor reviewed its ideals for industry a few years ago — at the time when the "super-power" and "giant power" projects first began to promise another great increase in our industrial product. "Finance," declared the *American Federationist*, "would send all of these great accumulating surpluses into profits. But humanity is entitled to a better distribution of this new-found production. The race as a whole has a stake in what the race achieves. Better methods, greater production, must mean more things for the working masses in the first place. It must then mean more freedom from toil. *And these things must be arranged with justice to every useful element in our citizenship. There can be no such adjustments unless there is within industry the machinery for running the affairs of industry. It is more than collective bargaining that is required. And labor has vastly more to give to industry than it can give through collective bargaining.*" [1] (My italics.)

"Labor has vastly more to give to industry than it can give through collective bargaining," and in order to make its full contribution it must have "a voice" in the shop, in the industry.[2] That is labor's proposed first step toward the democratic industrial government. The demand for "a voice" is not exorbitant, especially when we read labor's statement of the powers it leaves wholly in the hands of the management.

Labor's demand for "a voice in the control of industry" first became known to the nation during the war, when the labor unions were fully consulted in every one of the government's industrial boards, not only in the War Labor Board, but in the Shipping Board and all the others. After the war, employers sought, usually with success, to abolish this voice in control:

[1] *American Federationist*, May, 1924.

[2] This proposition in no way minimizes the importance of collective bargaining. Collective bargaining not only remains the foundation of the American labor movement, but as I have shown, all its newer functions depend upon the continued development of collective bargaining.

In so far as possible hostile employers have sought to reintroduce autocratic control into industry, making necessary a resistance on the part of the workers. Labor has enunciated the principle that the workers are entitled to an effective voice in the management and control of industry. To a larger degree than ever before, this principle was agreed to by employers during the war. It was found that it produced results of great value in the winning of the war. It made industry more productive.[1]

An "effective voice" in control does not mean control. For labor regards its demand for an effective voice as an implication of collective bargaining, and "collective bargaining in industry does not imply that wage-earners shall assume control of industry, or responsibility for financial management." [2] But once an effective voice is granted, we have the beginning of a revolutionary change in the industrial structure — pointing toward further revolutionary change.

When Labor asks for "a voice in the management," it asks first, for union-management coöperation as now practiced to the profit of both parties and the public by the Baltimore and Ohio Railroad. But it asks, further, that within certain sharply defined limits, to be mentioned later, organized employees should be recognized *as equals in industry*, "with all of the rights and privileges and all of the stature and standing of employers." The revolutionary importance attached by organized labor to this great social experiment (no longer an experiment) can be gauged only by following closely its own declarations on the subject. The first of these is all the more remarkable since it was made at the Montreal convention of the Federation in 1920, several years before the Baltimore and Ohio plan was inaugurated. I shall quote some of its most salient passages:

There must be given to each individual a voice in the shaping of his life, and this right must extend to the workers in their organized capacity, to be exercised through their chosen representatives.

Industry today requires these remedial measures:

It requires greater democracy in order to give to the workers full voice in assisting in its direction.

It requires more intelligent management and acceptance of the principle that production is for use and not for profit alone.

[1] Samuel Gompers, from pamphlet, January, 1920, on "Collective bargaining: Labor's proposal to insure greater industrial peace."

[2] Samuel Gompers to American Federation of Labor convention at Montreal, 1920.

The workers are appalled at the waste and ignorance of management, but they are too frequently denied the chance to offer their knowledge for use.

They decline to be enslaved by the use of their own knowledge and they cannot give of it freely or effectively except as *equals in industry, with all of the rights and privileges and with all of the stature and standing of employers.*

Autocratic industry kills incentive. It punishes brilliancy of attainment. It warps the mind and drains the energy from the body. We have repeatedly condemned the principle of autocratic control of industry and we now declare that short of its complete removal from our industrial life there is no industrial salvation and no hope of abundance in our time.

We urge the setting up of conference boards of organized workers and employers, thoroughly voluntary in character and in thorough accord with our trade-union organizations, as means of promoting *the democracy of industry through development of coöperative effort.*[1] (My italics.)

At the time it was formulated, this pronouncement might have seemed somewhat theoretical: in view of the Baltimore and Ohio experiment initiated two or three years afterward it becomes quite definite and practical. What was proposed was not a new organization of labor or industry, but that the existing labor organization should take on a new function, for which it knew it was fully prepared, and that the management should extend its organization so as to allow for that function.

Naturally the evolution of union-management coöperation within the shop and industry does not cease with installation. As it evolves it demonstrates the willingness of organized labor to coöperate and its ability to promote individual efficiency and the productivity of industry. Moreover, it gives organized labor and its experts a direct and accurate knowledge of at least one all-important side of finance, the mechanical cost of production.

The employers' movements for "employee representation" and "employee ownership" may be taken as rival or substitute plans to counteract and offset this rapidly spreading movement to give labor "a voice in control." For at the end of the war the movement had become formidable; strongly supported by public opinion, the wage-earners and their leaders were ill-disposed to surrender voluntarily a power they had already effectively exercised. The employers often adopted the phrase "industrial democracy" to describe their own proj-

[1] Report of Executive Council of American Federation of Labor at Montreal, 1920.

ects, and a part of the public, including many liberals who were genuinely anxious to look at things from the labor standpoint, followed the employers' reasoning. The liberals, starting out by adopting labor's premises, arrived unconsciously and unintentionally at employers' conclusions — greatly aggravating by their writings the difficulty now experienced by uninformed but fair-minded persons, however sympathetic with organized labor, in informing themselves on this question. A typical case of this reasoning is found in "The Industrial Code" of the Federal Council of the Churches of Christ in America:

> A deep cause of unrest in industry is the denial to labor of *a share of industrial management.* Controversies over wages and hours never go to the root of the industrial problem. *Democracy must be applied to the government of industry as well as to the government of the nation, as rapidly and as far as the workers shall become able and willing to accept such responsibility.* Laborers must be recognized as being entitled to as much consideration as employers and their rights must be equally safeguarded. This may be accomplished by assuring the workers, as rapidly as it can be done with due consideration to conditions, *a fair share in control, especially in matters where they are directly involved,* by opportunity for *ownership, with corresponding representation.*

The total effect of this pronouncement, because it concludes with a recommendation of "opportunity for ownership with corresponding representation," is damaging to organized labor. Labor may not object to such ownership and representation — in some cases may even approve of it — but not as *the* approach, or even as *an* approach, to industrial democracy. In its present form it is the employers' chief weapon against industrial democracy.

So American labor has demonstrated what it means by "a voice in industry." This first step toward industrial democracy has, in some instances, been taken — or rather, is in the process of being taken. What is the second step? Obviously it cannot be so clearly defined, since labor is not yet quite prepared for it. But as soon as one stage is in the process of being carried out, preparations necessarily begin for the following stage. The next stage labor calls "the self-determination of industry." This second stage looks beyond the shop to the formation of relations with groups of employees other than organized wage-earners and with ruling and controlling groups other than the operating management. Just as the first step consisted in the extension of the function of an ex-

isting organ (the labor-union), so the next step contemplates a new organ or organs, namely new machinery for the coöperation of economic groups.

By "self-determination" for industry labor means, first, that each industry should enjoy a large measure of autonomy within the social structure and, second, that industry should be operated largely through the coöperation of economic organizations representing all groups of producers within the industry. . . .

Labor's pronouncement on Industry's Self-Determination, passed unanimously by the Portland convention of the Federation, in 1923, has received high praise — though it has rarely been understood. Ex-Senator Beveridge, for example, wrote of it: "These short, clear paragraphs are statesmanlike. They might have been written by either Jefferson or Hamilton, by Madison or Marshall, by Cleveland or Harrison — so fundamental are they and charged with public wisdom." [1]

Certainly the Portland declaration is one of the most able and significant ever made by American labor. It closes with the modest disclaimer that it presents "no new formula, no new philosophy," and, indeed, it is wholly in line with the evolution of American labor thought and policy. But, while it is true that even the newest ideas spring naturally from the old, the declaration's opening paragraph indicates quite definitely the degree and kind of novelty it contains:

> We feel that the hour has struck *for a pronouncement of the aims of labor that shall more nearly express the full implications of trade-unionism* than any that has yet been undertaken in these annual reports. This we have had in mind in the preparation of previous reports, but we have preferred to follow the established practice of the American trade-union movement, which is to allow expression of policy and program to proceed naturally from the life and needs of the people, giving voice from time to time only to such proposals and formulations as have been finally shaped out of experience.[2] (My italics.)

The document then shows that organized labor, in its quest of industrial democracy, has passed beyond the mere demand that labor should have "a voice" in the industry and is aiming at a broad and fundamental change in the social structure — to be brought about gradually and by natural process:

[1] May, 1924.

[2] Report of Executive Council, 1923.

What we have observed is that the period ending with the beginning of the World War found political democracy in its fullest state of development, while the close of that period of overwhelming upheaval marked the opening of the period of intelligent demand and living need for industrial democracy. The close of the war marked for us a turning point in human relations and threw forth in bold relief the inadequacy of existing forms and institutions. Henceforth trade-unionism has a larger message and a larger function in society. Henceforth the movement for the organization of the workers into trade-unions *has a deeper meaning than the mere organization of groups for the advancement of group interests*, however vital that function may yet remain. . . .[1]

The central thought is that the social structure must necessarily be organized along functional lines, subordinating merely geographical boundaries, and therefore also *present* political boundaries (which happen to be geographical):

What is necessary is the perfection and completion of all the organizations that really function as a part of the industrial world. This includes not only labor, but those who are charged with the duties of management, those in the various engineering professions, those who serve in clerical capacities, those engaged in the various branches of distribution — in short, all who contribute usefully in the making and distributing of the multitude of products by humanity.[2]

The second idea of the document is that, economic groups having been organized, there must be some organization of these organizations, some approach to nation-wide federation.

For the future, industry must become something of which we have a national consciousness. It must cease to be disconnected collection of groups, like states without a union. The future demands an American industry, in which it shall be possible for all to give of their best through the orderly processes of *democratic, representative organization.* (My italics.)

The manifesto goes on to say that it is not "the mission" of industrial groups to clash and struggle, that their "true rôle" is "to come together and legislate in peace." Its final paragraph calls for "the coming together in working bodies of all organizations through representatives who shall speak for organic groupings. . . ."

[1] Report of Executive Council, 1923.

[2] Article in Wheeler Newspaper Syndicate, by Samuel Gompers, September 20, 1923.

The proposed "self-determination of industry" is not to be taken literally. While it implies a large measure of autonomy, it does not mean that industry is to be sovereign and absolute. It is important mainly as a further transition in labor's thought toward (1) the abolition of the control of industry by financial and profit-taking factors; (2) the effective governmental control of our great corporations and trade associations through new social organs differing fundamentally from those of our present government; and, possibly, (3) some form of industrial parliament or industrialized government.

The late President Gompers described two of these objectives:

> The next step is organization of the shop, thus creating a trade council in which all factors in the industry have representation, and then organization of the whole industry along the same lines. This is a natural development which we see now in the making. *Ultimately, perhaps, those things which concern all industry may be determined by a national economic body, truly representative, competent to make decisions and to secure compliance, or political regulation must develop a new technique and more complete personnel.*[1] (My italics.)

This is a very accurate statement of labor's ultimate goal. There is no dogmatic certainty as to those steps of labor's policy that follow after labor has obtained a voice in industry, but there is little difference of opinion among labor leaders concerning them. The only addition that needs to be made to the Gompers statement is that, if we may develop *either* toward a national economic parliament *or* toward a new form of political regulation, *both* developments may take place simultaneously.

From the date of its foundation, Mr. Gompers was keenly interested in the development of the powerful and successful "industrial parliament" of Germany, the *Reichswirtschaftsrat*, in which organized labor plays a subordinate but a very important part, and he repeatedly brought it to the attention of the Executive Council. In the summer of 1923 he commissioned the present writer to bring back from a visit to Germany what information was obtainable, and he had from the beginning two reliable German labor-union correspondents informing him on the subject. When in 1925, French labor persuaded the French government to inaugurate a similar scheme, the official weekly organ of the American Federation

[1] *Seventy years of life and labor*, page 25.

gave a sympathetic account which illustrates briefly and in a general way the idea as it takes shape in the mind of American labor.[1]

Neither the French nor the German "industrial parliaments" have been officially indorsed by American labor. But at President Wilson's industrial conference in 1920 organized labor asked the Federal government to encourage and promote the formation of national conference boards in each industry — somewhat similar to the British Whitley Councils. Quoting this action, Matthew Woll, one of the vice-presidents of the American Federation of Labor, wrote:

It is evident from the foregoing that the American Federation of Labor, including the railroad brotherhoods, has realized for some time the need for an *industrial congress* to aid our national government in dealing with industrial problems, and that the only possible method by which this could be accomplished, without conflicting with our present existing political form of organization, is through the formation of trade groups or trade associations on the part of employers, and trade-unions on the part of wage-earners, and by extend-

[1] The French government has created a national economic council whose object is "to consider questions concerned with the economic life of the country, and to find solutions for such questions, and to propose to the government the adoption of these solutions."

The council is composed of forty-seven members representing the various social and economic forces of the nation. "Labor" has thirty members, "capital" eight, and the "consuming public" nine. Members of the council are chosen in each category by the "most representative organization or organizations."

The labor group includes intellectual labor, education, direction of labor, salaried work, and urban and rural crafts.

The capital group includes industrial and commercial capital, immovable capital (rural and urban property), banks, stock exchanges, insurance funds, and savings banks.

The consuming public group includes consumers' coöperative societies and purchasers' unions, associations of mayors and unions of towns, users of public services, fathers and mothers of families and mutual-benefit associations.

The council's functions are of an advisory nature. "It will in no sense be a parliament or even an industrial chamber, such as has been tried in certain neighboring countries," declares a statement by the prime minister. "It leaves intact the sovereignty of parliament and the authority of the government. It will form, one may say, a sounding-board for public opinion. It should also form a valuable center of economic information for the use of government departments, parliament, and all who are concerned.

Despite these deficiencies, the representatives of the Federation of Labor accept the council as a step in the right direction and will work for an enlargement of its powers. — American Federation of Labor *Weekly news bulletin*, April 20, 1925.

ing the principles of coöperation and coördination to apply to both of these elementary and fundamental factors in our industrial society.[1]

The most important practical step taken by American labor toward securing "an industrial franchise comparable to the political franchise," as Gompers expressed it, was contained in a resolution of the Federation convention of 1925. This resolution called on Secretary Hoover to summon a conference of representatives of labor, farmers, and trade associations to discuss the elimination of legal obstacles "to the constructive organization of all essential factors in agriculture and industry." It also indorsed "the coöperation of all essential elements within industry" and urged, as a means of preventing the abuse of industrial organization, "uniform and public accounting at stated periods" as determined by the proposed conference. It was publicly stated (and not denied) that Matthew Woll had consulted with Secretary Hoover before introducing the resolution. The step contemplated would go a considerable way toward the voluntary organization or industry under government auspices.

A few months later, Woll applied these principles to the Federal boards and commissions that have now come almost to form a fourth branch of our government — in addition to the legislative, executive, and judicial branches. It is now more than a generation since Congress found that our primarily political government was ill adapted for the continuous performance of fundamental economic functions. The earliest one of these economic boards, the Interstate Commerce Commission, was instituted four decades ago, and for more than two decades has been endowed with such powers that it may almost be called a co-administrator of our railroads. The Federal Reserve Board has scarcely less power over our banking system, and the Shipping Board, in view of our nationally owned fleet, has been exercising an even greater power over our ocean-going commerce. The Federal Trade Commission was intended to cover a very broad field of supervision over commerce and industry, though with smaller powers. And these are but a few of the more important instances. Governmental boards for supervising our economic structure are expanding rapidly, and the proposal to reorganize and industrialize them

[1] New York *Evening Post*, April 11, 1922.

and to make them truly representative of all essential economic factors, aims to revolutionize, in an economic and democratic sense, the economically most important arm of our government.

It does something more than this: It applies the principle of an industrial parliament — still far off in all countries — to those existing institutions to which it is most readily and scientifically applicable. And, above all, it drops the impracticable and undesirable idea of a solidly unified supervision of the economic structure (through an industrial parliament or by any other means).

Vice-President Woll has brought together labor's thought and policies concerning these boards and shown that they amounted to a revolutionary modification of the European experiment of an industrial parliament. For American labor policy abandons the idea of a unified control — through a body artificially instituted — for the more modern idea of a plural control — through the industrialization and democratization of those various boards and commissions that have naturally evolved out of our economic needs, and therefore express them accurately. The further process of industrialization and democratization, moreover, is also to follow the lines of existing economic structures and organizations.

Woll expounded this newest application of American policy upon taking Gompers' place as vice-president of the National Civic Federation early in 1926. A few paragraphs from this address will give a fair idea of its principal features:

> Organized labor has declared against "the domination of industry by political bodies." It is opposed to domination and it is opposed to political interference. But it favors control by bodies truly representative of industry and it realizes that such bodies can be organized only under the supervision of government.
>
> Here is a principle for the application of which our economic and political evolution is fully ripe. Yet it can have the most revolutionary significance. These boards have become an essential part of our political and economic structure — intermediaries between industry and government. As at present constituted they are attacked from both sides — as controlling too much and as not controlling enough. But from whatever side they are attacked, it is agreed that their chief vice is that they are too political and not sufficiently economic in composition, structure, and function.

Legislation should provide that every commission should be representative of each of the essential economic factors. The leading economic organizations should insist that their judgment should count in the selection of these representatives. They certainly would insist — and they could do it effectively, if they gave one another a measure of mutual support.[1]

[1] Address before National Civic Federation, January 9, 1926, quoted from International Labor News Service, February 6, 1926.

XVIII. THE PRICE OF INDUSTRIAL PROGRESS[1]

By Sumner H. Slichter
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"Business," says the December [1927] review of the National City Bank, "though no longer proceeding at the boom levels of a year ago, is by no means depressed." Building is continuing at an almost record-breaking rate; bank clearings, even where not affected by stock-market speculation, are running above last year; loadings of merchandise and less-than-carload freight are nearly as high as a year ago. "These," says the Bank, "certainly are not symptoms of depression, but on the contrary indicate a volume of business distinctly above the average."

Nevertheless, the index of factory employment of the Bureau of Labor Statistics reveals a situation which must be regarded as disquieting. According to the index, factory employment has dropped nearly 15 per cent since 1923 and over 5 per cent since the fall of 1926.[2] The forces of Class 1 railroads in October, 1927, were over 13 per cent below the average for 1923 and over 12 per cent below October, 1926. Since 1923, the population of the country has increased approximately 5 per cent. In addition, business depression and technical progress in agriculture have accentuated the flow of labor from farm to city. From January 1, 1923, to January 1, 1927, the *net* flow from farm to city was in excess of 3,100,000. Not all of these persons were employment seekers, but it is safe to assume that over 1,000,000 of them were. There has, of course, been a large absorption of labor by garages, filling stations, and building and road construction, and there is a tendency for children to spend more years in school. But even allowing for these things, it is evident that a 15 per cent drop in factory forces and a similar decrease in railroad employment, in conjunction with the 5 per cent increase in population and the large cityward flow of farm labor, could not occur without producing severe

[1] Reprinted by permission from the *New Republic*, February 8, 1928.

[2] The index of the Bureau has a downward bias, but for periods as short as three or four years this bias is almost negligible.

unemployment. In a word, it is evident that there is ample justification for the widespread complaints now current in labor circles concerning the scarcity of jobs. The situation has been slow to attract attention, however, because it has come upon us gradually and stealthily, rather than as a result of a sudden and dramatic collapse of markets. This is shown by comparing the quarterly indexes of factory production and employment beginning with 1926 — when the last peak of employment was reached. The figures (1923–1925 = 100) are as follows:

	Factory output	*Factory employment*
1926 1st quarter	108.3	99.3
2d "	107.0	98.0
3d "	110.0	96.9
4th "	108.3	97.6
1927 1st "	107.3	96.6
2d "	109.3	95.7
3d "	106.0	93.4
4th "		92.2

Until the middle of 1927, factory production remained substantially unchanged. Nevertheless, during the entire period there was going on an almost unbroken decrease in employment — a decrease which by the fall of 1927 amounted to 7 per cent.

The present unemployment appears to be due to two principal causes, one cyclical and the other technological. For the last half-year, we have been in the trough of the business cycle. This is evidenced by the fact that, during the three months ending November, 1927, the index of factory production was 9.2 per cent below the corresponding period of 1926. But far more important than the cyclical drop in production has been the steadily increasing efficiency of technique. Taking the period 1923–1925 as 100, manufacturing output in the first ten months of 1927 was 107, but factory employment was only 95.1. In other words, with 5 per cent fewer employees, our factories turned out 7 per cent more product. The figures by industrial groups are significant because they indicate what great increases in output have been accomplished in certain instances with fewer workers.

	Production	*Employment*
	(In October, 1927)	
All manufacturing industries	102	93
Iron and steel	93	91
Textiles	113	95
Food products	93	97
Lumber	95	88
Leather and shoes	109	95
Paper and printing	112	104
Cement, stone, clay, glass	108	95
Non-ferrous metal products	106	91
Tobacco products	121	94
Automobiles	71	87

Most forecasters predict a business revival in the late winter or spring. Their expectation is based upon: (1) the temporary upward trend in wholesale prices; (2) the improvement in the agricultural situation (mail-order sales are running over 45 per cent above the 1923–1925 level); (3) the prospect that money will continue to be cheap; (4) improvements in the European situation as reflected in the recent stabilization of several currencies; and (5) the decrease in manufacturing late in 1927 which has checked the accumulation of inventories. But the revival may not come, and even if it does, it is likely to be mild. Business men tend to avoid commitments in a presidential year; it is extremely uncertain that building will continue on the large scale of the last two years; the necessity of taking definite steps to modify or abandon the Dawes Plan will be a disquieting influence in international finance; and finally, the inventory situation is not entirely favorable because stocks of manufactured goods at the end of 1927 stood about 8 per cent above 1926.

But let us grant that a moderate revival of business is probable. Is it likely to relieve unemployment? Here it is important to bear in mind that *the present situation is not primarily the product of cyclical causes.* Consequently, we should not necessarily expect it to be greatly affected by a moderate business boom. On this point, the experience subsequent to the depression of 1924 is instructive. During the six months following the low point in July, 1924, factory output went up 27 per cent, but fac-

tory forces increased only 6.2 per cent! In 1925, as a whole, manufacturing output was 12 per cent above 1924, but employment increased by less than 1 per cent. In 1926 factory production advanced 3 per cent above 1925, but again factory forces increased less than 1 per cent. Judging from this experience, a moderate business revival would afford very incomplete relief from the present unemployment situation. Although the employment index might advance to 90, it is unlikely to go much beyond this.

But if a business revival offers little hope of relief, what can and should we do? Clearly, we are confronted with what appears to be a new kind of unemployment problem — the problem of unemployment created by technical progress. This problem has always existed, but its presence has been obscured by the violent cyclical fluctuations of business which have made unemployment appear to be largely a product of the business cycle. Now, however, as business becomes somewhat stabilized, the unemployment caused by technical progress emerges clearly into view. If we succeed in our efforts to control the business cycle, the problem of "technological" unemployment will be with us permanently. We need, therefore, a permanent policy for dealing with it.

The essential question which confronts us is, Why is not the community's demand for goods large enough to create jobs for the men displaced by technical progress? Obviously, if the community had enough dollars to spend for goods, the services of the displaced men would be in demand. The heart of the difficulty seems to be that the community lacks enough dollars to purchase at prevailing prices *both* the output of the new labor-saving machines and the services of the displaced men. The problem might be solved by forcing down wages or prices until the displaced men could obtain work, but there are obvious objections to a policy that means falling prices or wages. The alternative procedure would be to increase the number of dollars in the possession of the community sufficiently to provide a demand both for the displaced labor and for the output of the new machines.

At the very outset, let it be observed that this cannot be done merely by taking dollars away from one part of the community and transferring them to another part. Clear perception of this elemental fact eliminates a number of possible proposals. Fortunately, it is not necessary to dig

down into the ground for gold in order to provide ourselves with more dollars. The typical dollar today is a credit dollar, created by a fountain pen, rather than stamped out of gold bullion by a machine. It lies within the power of the banks to create a large number of credit dollars upon short notice, and the Federal Reserve System, by its rediscount and open market policies, can influence the number of dollars which the banks create. The question therefore arises whether we should not give the Federal Reserve System the duty of seeing that the community has enough dollars to provide a demand for the labor displaced by technical progress.

It is obvious that this would be no light responsibility, and possibly we need to know more concerning the detailed functioning of our financial institutions before imposing it upon the Federal Reserve System. There are serious dangers to be guarded against. The record of 1927 illustrates one of them. Credit dollars come into existence when customers borrow from the banks. During the last year, interest rates have been low and the community has increased its indebtedness to the banks. Nevertheless, the expansion of credit has not diminished unemployment, because the additional dollars have been largely used in stock-market and real-estate speculation where they do not set much labor in motion. Another danger is that the additional dollars would be used to pile up excessive inventories which eventually, of course, would have to be liquidated. This would accentuate the cyclical movement of business. Thus, in our efforts to relieve the unemployment caused by technical progress, we might accentuate the problem of the business cycle. Indeed, it seems quite probable that the Federal Reserve System could not discharge the responsibility of providing the community with enough dollars to keep labor employed unless we can give it methods of controlling more or less definitely how the dollars are used.

Regardless, however, of the specific procedure which is most desirable, it is evident that we are confronted with an extremely grave problem — the problem of reducing the cost of technical progress. We are obtaining more and better industrial equipment only at the price of a heavy investment in unemployment and human misery. We are not getting a bargain. We are purchasing progress at a high price, and the cost falls largely upon those least able to bear it. The greater our success in stabi-

lizing the business cycle, the more plainly we shall find unemployment created by technical progress staring us in the face. Both justice and expediency demand that the community provide itself with sufficient dollar purchasing power to give the victims of progress an opportunity to produce.

XIX. THE REALITY OF UNEMPLOYMENT[1]

An Editorial

The magical American optimism toward public questions appears nowhere more strikingly than in our treatment of unemployment. It must exist and grow for many months before it attracts any attention. No matter how much intelligent research is applied to the problem when a crisis occurs, the measures recommended, which, to be effective, must be of a permanent nature and must be built up during prosperity, are forgotten the moment the crisis is past. There is even a prevalent view that Americans do not have to provide alleviation for such ills because we are so ingenious and progressive that we are bound, almost without trying, to invent ways of preventing anything of the sort in the future. We always seem to assume, each time we have recovered from the disease, that it will never plague us again. All this is traceable to a superstition arising from fear and taboo. Unemployment is unpleasant. Its existence challenges comfortable assumptions about the unique excellence of our economy and the unequaled efficacy of our individual enterprise. We like to think that we can abolish it by forgetting it. We dislike to disturb that "confidence" which we believe is the magic of prosperity, by admitting that unemployment exists, or, if we must admit that, by admitting that it may exist again. As the chosen people of the god of material wealth, we defend our virtue by keeping the unemployed among the untouchables.

A flash of that exclusive pride has been aroused even by the repeated statement of the *New Republic* that the United States, alone among the important industrial nations, has no means of measuring the number out of work. It is pointed out that the unemployment figures of Great Britain are faulty in that they do not cover some occupations, that they do not include those reaching maturity who have never had a job, that they often exclude wage-earners on strike. All this may be admitted; doubtless no nation has a completely accurate measure of the unemployed.

[1] Reprinted by permission from the *New Republic*, February 15, 1928.

Nevertheless, Great Britain, Germany and others do have national systems of labor exchanges at which the majority of the industrially unemployed are registered. They do know important facts with regard to the greater section of the problem. They do have some assurance that many available jobs have made connection with persons who might fill them, and they do care for a large proportion of their jobless by insurance placing the burden where it belongs, on industry and the state, rather than on poor relief, private charity, and those out of work. Their approach to the problem may be incomplete, but we have not even made the approach, and we cannot excuse ourselves by calling attention to the comparatively minor deficiencies of others.

In spite of all optimism, evidence daily accumulates that this has been — and remains — a winter of extraordinary unemployment. Mr. Lawson Purdy, director of the Charity Organization Society of New York, states that the Society is now receiving more applications than at any time in the past eleven years, and that its disbursements in December were greater than in any previous December in its history. It has been necessary for the Society to borrow many thousands of dollars to meet its obligations. Of the families which it is aiding, about 20 per cent are in need because of unemployment. Two-thirds of the unemployed are between the ages of twenty-five and fifty, and nearly all are able and willing to work. Unemployed demonstrations have recently occurred in Passaic; an Ohio report speaks of the out-of-work crisis in that state; New England is suffering; and, of course, we have constant reports of misery from the coal regions.

How many are actually out of work? The only attempt at detailed estimate which we have seen comes from the Labor Bureau, Inc., of New York, which guesses, on the basis of the admittedly insufficient evidence, that there are about 4,000,000, or nearly one-tenth of the total gainfully occupied in the nation. This guess, when examined, does not appear unreasonable. By applying the index of employment in manufacturing industries to the basic census figures, it estimates the decrease in the number of these workers between 1923 and 1927. It uses the Interstate Commerce Commission figures of railway employees for a similar estimate in that occupation. By applying production indices to the probable totals of coal miners and building employees in 1923, and allowing for no

change which may have occurred in these industries due to increased productivity, it arrives at the estimated change in their employment figures during the past five years. And it uses Professor Slichter's estimate[1] of the number of farm workers who have moved to town seeking jobs. The table follows:

ESTIMATED DECREASE IN EMPLOYMENT
1923–1927

	Number employed (*est.*)		*Approximate change*
	1923	1927	
Mfg. industries	8,778,156	7,768,668	− 1,000 000
Railways (Class I)	1,880,000	1,774,000	− 100,000
Coal mines	862,536	787,150	− 100,000
Farm workers moved to town			− 1,000,000
Building workers	1,415,975	1,701,248	+ 300,000
Total	13,936,667	12,031,066	− 1,900,000

It is noted that while the number of employed building workers has probably increased since 1923, it is now less than in the past two years. Thus far, about one-third of the gainfully occupied population are accounted for, and the decrease indicated is about 13 per cent. Since the population has grown about 5 per cent in the period, we must further account for an addition of about 3,000,000 to those of employable age. And since there is always a minimum reserve of unemployed, even in the most prosperous years, there is added the conservative estimate of 1,000,000 out of work at the base period — 1923. All this adds up to the formidable total of 5,900,000. The chief question is, How many of these may have found jobs in the occupations which the figures so far do not cover? Here is where the widest disagreement is possible. The Labor Bureau places the figure of increase in these occupations at the conservatively large sum of 1,850,000, by assigning a growth of 200,000 to the professions, 100,000 to amusement trades, 200,000 to public utilities, 750,000 to automobile sales and service, 500,000 to other distributive trades, and 100,000 to miscellaneous occupations. The net total of unemployed thus becomes about 4,000,000.

[1] Professor Slichter's article is reprinted in the present volume as number XVIII. — The Editor.

Divide this in half, if you like, and it still remains a huge army, dependent for what sustenance it has upon the charity of others, and, for the greater part, upon contributions from the scanty pay envelopes of relatives, friends and fellow workers who can ill afford the burden. Remove this burden, find wages for the jobless — and imagine the stimulus to markets and to the national income! If by Act of Congress 4,000,000, or 3,000,000 or 2,000,000 men and women were removed from productive work for no good purpose, business would allow nothing else to be considered until the Act were rescinded. Will it refuse to give consideration to a similar situation, just because it has crept upon us unwilled?

Already, it may be said, conditions have improved, and unemployment may have shrunk to the "normal" level before we can get around to doing anything about it. Even if this were so, we ought to prepare for the next onslaught. But it is not likely to be so. Improvement has been visible recently in automobile manufacturing and steel. The motor manufacturers have been preparing in advance for the spring trade; it remains to be seen whether they can sell many more cars than in 1927, over a series of months. Steel has benefited, not only by increased demand from the automobile industry, but from large railroad orders, partly carried over from last year. But the expectation is that not much more will be spent by the railroads for plant and equipment in 1928 as a whole than in 1927. Large contracts for public works have been awarded: whether these and new capital expenditures for industry will serve to make up the recent deficiencies in production remains at the least an open question. No recovery is in sight for textiles or coal, which contribute large divisions of the unemployed army. There is no sure sign on the horizon that business will continue to be much better this year than last.

Even if a moderate revival is sustained, moreover, we have to reckon with the fact, pointed out by Professor Slichter, that a large part of the present unemployment has crept upon us gradually as a result of more efficient processes, rather than as a result of a temporary industrial slump. When factory output went up 27 per cent after July, 1924, factory employment grew only 6.2 per cent. The utmost conceivable recovery of production would not take care of any such numbers of unemployed as are now indicated. The present problem is likely to be a continuing one,

as unemployment has not been, with us, since the seventies and eighties of the last century.

In spite of all these considerations, we expect that responsible quarters will either ignore the present unemployment, or will deny that it exists, or will say that it is a minor difficulty, sure to correct itself in time if the customary encouragement is given to business interests. If all these evasions are not sufficient to obscure the facts, we expect the unemployment to be attributed to the investigation of the electric-power industry, or to a fear that the Democrats will win the election, or to any prominent manifestation of opinion regarding the industrial scene which those in power do not happen to like — even to an increasing discussion of unemployment itself. But the fact will remain that an administration whose only important claim to public favor is a special oversight over prosperity will be seeking vindication in a year when employment — surely one of the most fundamental indices of prosperity — has been at a low ebb. This certainly offers an exceptional opportunity to question whether that administration knows what prosperity is, or is capable of giving it substance. If somehow the taboo on unemployment can be broken, and its reality recognized, America may begin to substitute medicine for magic in its treatment of economic ills.

XX. AROUSING COMMUNITY ACTION TOWARD THE PROBLEMS OF LABOR [1]

By Willard E. Atkins
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Suppose we were able to make a vast and composite moving picture of the people of our country at the present moment. There would, perhaps, be millions of boys and girls in grammar schools and high schools, thousands of young men and women in colleges and universities, hundreds of travelers going from city to city, millions of farmers plowing or reaping, an army of housewives sweeping the parlor or preparing the next meal in the kitchen. Wherever we look there would seem to be scarcely any one of the one hundred and fifteen million citizens of the nation giving so much as a moment's thought to the great problems which have sprung up in connection with our industrial life. Everyone is so engrossed in the petty routine of his daily activities that he seldom stops to think of the larger scheme of things in which his own problems and activities are, after all, but an infinitesimal part.

Yet it is a matter of common knowledge that the community does exert an influence on the problems involved in the relations of employers and employed. We have but to listen to the conversation of people on the street cars or in the clubs to come across repeated and emphatic expressions of opinion which are of importance in the modification of industrial relations. We have but to turn through the laws of Congress or of our forty-eight state legislatures at any session to be impressed with the volume of laws which relate to some aspect of "the labor problem." The community does influence the relations of employers and employed by its opinions and by its laws. This process is called the process of social

[1] Reprinted by permission of the publisher from *Labor attitudes and problems*, by W. E. Atkins and H. D. Lasswell, Prentice-Hall, Inc., 1924, pages 465–476.

control, and its two aspects are termed "informal" and "formal" modes of control.

Informal modes of control

Consider this case: A rumor arises and spreads that a certain factory is hiring child labor and paying "starvation wages." Very soon people begin to criticize the officials of the business and to characterize them as "grasping," "selfish," "inhuman." Newspaper editorials may catch up the cry. Preachers may allude to the duty of man to man, in their sermons, with thinly veiled applications. The families of the officials may stumble across the prevailing opinion at social functions or at school. One of the most fundamental human wishes is for a good reputation among the members of one's own group, and when the air becomes charged with these criticisms, the managers of the industry under fire may change their methods. If the loss of reputation is not a sufficient influence, they may fear possible government interference in their business, for when informal devices are not adequate to accomplish a purpose thought desirable by the community, more drastic measures may be taken.

The informal pressure of public opinion is more effective in small than in large communities because of the more direct way in which expressions of social disapproval reach the culprits. When an industry is dispersed through many cities, a better organized pressure is needed. This is sometimes secured through the mere publication of facts by an agency believed to be impartial. The report on the steel industry which was made by the Interchurch World Movement in 1920 did much to put the steel industry on the defensive, and although the facts cited were challenged as unfair in many particulars, they found very widespread acceptance. There have been occasional "muck-raking" periods in journalism in which the alleged abuses of industry have been set forth to the public and have, by constant repetition, impressed themselves on the public mind. The famous novel by Upton Sinclair, *The Jungle*, purported to reveal the revolting life led by the employees of the Chicago meat packers; and it was very influential in stimulating certain reforms. Investigations conducted by the government into child labor conditions in the United States have also been effective in arousing the public.

Formal modes of control

When informal criticism fails to improve conditions, there is practically always a demand for legislation, that is, for formal intervention by an agency representing the pooled force of the community. A whole mass of rules has been laid down by the legislatures of our governing units, such as "Women shall not work on night shifts more than eight hours," "Children shall not be employed before they are sixteen years of age," "Coal mines must have at least two escape shafts," "Wages must not be agreed upon at levels below a minimum prescribed by wage-adjusting boards," and scores of similar commands.

The trust in legislation as a cure-all for social diseases is a comparatively new thing in society. For over a thousand years our Anglo-Saxon forefathers never dreamed that new social regulations could be prescribed. When a king enunciated a rule, he was always supposed to be declaring the legality of a custom already in existence. Social relations were governed by a "cake of custom" which was accepted as part of the eternal fitness of things. It was only with the appearance of new social conditions growing out of expanding communication and accentuated by the Industrial Revolution that old customs were found to be no longer applicable, and the necessity for new rules became so obvious that the fiction which attempted to uphold the continued adequacy of declared custom could not long be sustained.

The reliance upon legislation as a means of social control has frequently produced many difficulties. Laws are sometimes secured by the energetic lobbying of opinionated minorities, which have little support among the public in general. Immediately the government is confronted with almost insuperable difficulties of administration. Laws forbidding the employment of children below a certain age have often been violated or evaded in some localities, with the connivance of officials, because the overwhelming majority of the public was not educated to support them. When children are the only support of widowed mothers, or when the children of a working community have always gone to work at an early age, the law stands in the path of community sentiment, and it is usually the law which bends. The modern social reformer has come to expect less from statutes and more from the slower processes of education.

Thus far we have spoken as though the passage of laws represented the

chief mode by which social attitudes were formally imposed upon the entire community. But this is only part of the truth. In many respects it is the courts which, independently of explicit legislative enactment, give the most effective means of control. The reason for this is that the courts administer a body of rules and regulations, a large part of which was developed before statutory law came into existence. The United States has inherited the Common Law from England, where it was developed through many centuries of social experience. It has been said that, in England, "if all the statutes of the realm were repealed, we should still have a system of law, though, it may be, an unworkable one; if we could imagine the Common Law swept away and the Statute Law preserved, we should have only disjointed rules torn from their context, and no provision at all for many of the most important relations of life." [1] In the United States there have been many attempts to codify the Common Law in statutory form, yet this statement with modifications is largely applicable to the United States.

The courts have developed many devices for the protection of the community against the action of recalcitrant elements within it. If irreparable damage were threatened to industrial property and the courts could not intervene, it is morally certain that the possessors of the property would use every means at their disposal to save it from destruction. It is obviously dangerous to provoke individuals or groups in the community to take force in their own hands, for there is no guarantee that the peace of the community may not be disturbed by bloodshed. The courts have developed doctrines which admit of their intervening to protect property from irreparable damage.

The law which is administered by the courts is in their hands a constantly growing and changing thing. As social conditions change and social ideas of right and wrong undergo modification, the courts reinterpret their rules in order to square with the new public attitudes.[2] Since the legal theory is that the courts are applying absolutely fixed rules which have been precisely defined by precedent, this represents a slowly evolving readjustment of which the judges are frequently unconscious.

[1] Geldhart, *Elements of English law*, page 9.

[2] See an example in "The personality of associations," by Harold J. Laski, in the *Harvard Law Review*, vol. XXIX, no. 4.

During a period of rapid changes in the nature of social relations, new situations are constantly appearing and new standards of judgment are spreading through the community. The courts are frequently unwilling or unable to reinterpret their doctrines rapidly enough to fit the requirements of the period, and the impatient public is likely to demand statutory relief. Modern social legislation is especially concerned with the condition of the workers, which the antiquated legal doctrines will not permit the courts to relieve.

Community action, informal or formal, is ordinarily somewhat difficult to observe and measure on account of the extreme preoccupation of individuals with their own affairs. But there are some occasions in which the public is stirred to spontaneous action, and agitations are always under way which are meant to culminate in induced action.

Action to help the distressed

The community may act because a dramatic crisis reported in the news calls for its sympathy for a distressed group. In the case of the Cherry Mine disaster, the people of Illinois and of the entire nation were aghast when they heard of the horrible deaths. For days the newspapers told of the heaps of dead, of the suffering of widows and children, of the heroism of the rescuers. Newspapers wrote editorials to arouse the public. Letters were written to the press for publication. Sermons were preached on the duty of the community toward those of the community who faced danger. Writers dug up records of other mine accidents and filled the papers with vivid stories of the mining risks. Members of the legislature began to ask questions. And what came out of it all? A commission investigated the facts, and on the basis of the situation, the legislature revised the coal-mining law of the state to compel the installation of fire-fighting apparatus at convenient places within each mine, and enacted a series of other preventive measures. Here we have an example of spontaneous action that was conditioned upon humanitarian, not selfish, motives.

Why action is not always spontaneous

Unanimous action with regard to labor conditions is, in reality, the exception and not the rule. Often the situations are in themselves dramatic, but the reports of what happens may be so contradictory or reveal

a situation upon which there is so much division of opinion that nothing is done.

Year after year the United Mine Workers of America sent organizers into West Virginia. "Union conditions aren't safe as long as non-union conditions exist," they said. The coal companies regarded the organizers as agitators and disturbers of the peace. "Quit meddling," they retorted. "If the miners work in our mines, they work non-union. If they don't want to work in our mines, let them stay out. Anyhow, we don't want foreign interference with the management of our own business." Mine guards were hired. Union men were escorted out of the community. Disturbances occurred; murder resulted. For years this warring situation existed; it exists today.

In the instance just cited, the community was not agreed on what action should be taken. Some sympathized with the miners and some with the employers; as a result, concerted action was impossible. Conflicting interests had to be reconciled, and the facts of such situations had to become generally known before there could be the unanimity of opinion that must precede community action. Only when public rights are being encroached upon do individuals and groups come together and set out to secure community control.

To understand the existing barriers to common action, one must call to mind the vast differences in the lives of America's workmen. As an aid in understanding the obstacles that stand in the way of concerted action, suppose you picture their experiences in terms of what certain groups, say the coal miners, face in contrast to what other groups, say the casuals, the steel workers or the agricultural workers, face. Then contrast each of these variations in experience with your own experience, and with the experiences of others with whom you are acquainted. Give concrete meaning to terms you have read about, such as specialization, impersonal relations, immigration, money economy, ignorance, prejudice, risks, fears, tenements and comfortable residences, poverty and riches, employer and employee, American, Italian, Lithuanian, Russian, Mexican, white and colored, Democratic and Republican, Catholic and Protestant, the striker and the public, the farmer and the middleman. Draw a circle about all these inconsistencies in the community and call the result enclosed a city, a state, or a nation. Then it will be possible to

form some conception of the difficulties that lie in the way of united action on the part of peoples.

Sometimes spontaneous action never comes into being because no dramatic situation exists to disturb the preoccupation of the public. Very few dramatic situations have existed to call attention to child labor. The few who have known about this social evil have been forced to educate the public by degrees.

Induced community action

When the community is hopelessly divided on situations dramatically revealed to it, and when the community does not have certain matters dramatically revealed to it at all, agitation is necessary to prepare the basis of agreement. Among agitating groups some aim to secure immediate and tangible benefit from community action; these may be called "special-interest" groups. Other agitating groups receive no immediate pecuniary benefit from their efforts; usually they are called "general-interest" groups.

The special-interest groups have definite objectives — they want what they want when they want it; and they know, often all too well, how to go about getting it. The general-interest groups, on the other hand, often have no definite program; they have in mind general principles and programs — and generalities do not always yield concrete results.

A word of caution is not out of place at this point. It should not be supposed that all special-interest groups are opposed to the public interest, and that all general-interest groups are necessarily working for the public interest. A business man may want a law passed protecting certain kinds of property, and this may be very desirable both from his point of view and from the point of view of the community. An enthusiast may want the community to saddle its future with indebtedness in order to build a vast and imposing city hall, even though he expects no pecuniary advantage from the operation. It is not necessarily a compliment to be called a member of a general-interest group, nor is it necessarily an indictment to be considered a member of a special-interest group.

Among the organizations agitating in the field of industrial affairs and immediately interested in the outcome are the legislative and publicity

committees of the city, state, and national Federations of Labor. Sometimes opposed to them and sometimes working for the same goal are employers' associations of various kinds. Many northern manufacturers worked with the labor organizations to urge the government to abolish child labor, not only because of general interest in helping the handicapped, but also in the hope of removing the threat of competition from industries employing cheap labor in child-labor states.

No less important than the "special-interest" organizations are such "general-interest" organizations as the Women's Trade Union League or the American Association for the Promotion of Labor Legislation, civic organizations of various types, women's clubs, reform periodicals, whether of progressive, radical, conservative, or "stand-pat" tendencies. Through the channels of these organizations, and because of their activities, the opinions of many citizens are mobilized who desire to help the handicapped ones of the community, to restrain the actions of those who seek to take the law into their own hands, to prevent struggle from falling to a plane where brute strength determines the verdict; in brief, to realize their theories of truth and justice. Partisans with special interests to exploit cling to groups of this variety; but on the whole, the function of such organizations is that of agitation for ends in which they have no immediate and tangible profit.

What the workers have done

At this point one may very well examine in more detail what the people most directly concerned, the workers, have done in agitating for changes that they most desire. Here it is necessary to consider first the skilled worker and then the unskilled. The skilled workers, especially when organized, having some leisure, money, and education, have been able to agitate for many changes which concern themselves. But workers who are both skilled and organized are but a small portion of the working population, and even this small part has done little to advance the cause of most of the unskilled groups. It is the unskilled workers, of course, who are the most heavily handicapped by maladjusted social conditions, and they are the very ones who do least to alleviate these conditions. They may be so accustomed to insanitary housing that the idea of living in better homes does not appeal; so ignorant that they do not know

enough to change their status. Even those among them who cherish high ideals of living are so submerged in the daily struggle, so ignorant of how to proceed, as to be unable to raise an effective cry for change.

The rôle of the privileged

If the unskilled are to be offered new standards, or compelled to adopt them, the initiative must come from elsewhere within the community. Unorganized, inarticulate, often lacking the attributes of decent living, the unskilled workers themselves can do little. The source of their advancement can be only the economically privileged and powerful. It may happen that the policies necessary to elevate the condition of the unskilled groups may seem to threaten the profits and to raise the taxes of the more privileged group, and history demonstrates that the privileged will oppose any emasculating of their prerogatives. How, then, is this opposition overcome?

In the first place, it has been suggested that many employers do not think through the proposals made to them for welfare enterprises; they may be swept along in the current of a reform era. The economically better off may themselves have risen from the ranks, and may from bitter experience sympathize with the struggle of the workers to raise their standards. Sometimes a lurking flash of the vague term "unrest" is a factor. Then, again, shortened hours and increased wages may lead to an immediate increase of production; under such circumstances the opposition not only dwindles but may turn into warm support. To illustrate this latter point, it has been suggested that the comparison of the efficiency of the British worker in production with that of the German worker was so unfavorable to the British that there was a considerable movement before the war toward social legislation in England. Moreover, among other tendencies at work, there may be a belief that the more spending money the workers have the more goods they will buy. A great variety of influences undoubtedly does operate in a very real sense to account for the action of those who, at first glance, seem to fear the cost of change — and yet welcome and work for it.

Agitation devices

Particular devices used by the various agitators to secure community action depend largely upon the objects which they may have in view. If

they wish merely to secure the passage of a law for which the public mind is prepared, they may direct all of their attention to lobbying in the legislature. "Interest groups" have sometimes been accused of using bribery and the threat of coercion to secure their ends. Usually the direct pressure on the government is increased by securing general public support through lectures, periodicals, pamphlets, and demonstrations. Petitions may be circulated, and it may be urged that the general public send letters to Congressmen. It so happens that some varieties of community action require little or no formal agitation. Workmen's compensation laws came into existence through the voluntary assent of employers and workers. Such types of community action are likely to be more permanent than those which are thought by minority groups to be unjust. Some conspicuous cases of this latter, the type thought by some to be unjust, arise when there are different moral standards within the formal community. Thus in many cities of our country there are immigrant groups who regard it as fundamentally right for each man to decide for himself whether he desires to drink alcoholic beverages, and they not only resent prohibition legislation but encourage disobedience. The difficulties of enforcement are an example of the difficulty inherent in community action that is resented by part of the group.

Sometimes one "special-interest" group may capture the government, and use its powers for its own purpose. A government investigation showed that many towns in Colorado were operated at the dictates of the Colorado Fuel and Iron Company. The company proposed the ticket, provided election officials, and saw to it that no labor "agitator" was selected. During the coal strike of 1922 there occurred the so-called "Herrin Massacre" in which miners and guards were killed. Undoubtedly it was the general feeling that the members of the miners' mob ought to have been immediately tried for murder, but on account of local sentiment, the local and even some parts of the state government refused for some time to act.

The political party and agitation

Almost all the agitation groups seek to influence the political parties, for the party is the means of uniting the activites of individual legislators and executives so that the proposals for community control may become

actual laws with the required mechanisms for carrying them into effect. A political party, however, is a group of people anxious to select the personnel of the government, ostensibly with the idea of changing the policy of the government, but really for the main purpose of filling jobs. Because of this fact it is well known in our country that the two major political parties seldom differ on fundamentals in their attitudes toward the workers. Their planks may contain a general declaration against child labor, but usually only after the private organizations have succeeded in raising the level of public opinion to that point. Minority parties may sponsor new measures; major parties usually take over new programs as soon as they are widely accepted. There is no mystery about the unwillingness of the major parties to commit themselves more definitely than in terms of "a full dinner pail," or "normalcy." The party must command votes in order to win. Specific issues divide; general symbols unite. Every one will shout for "justice to everybody"; some of the loudest of the shouters will scowl when factory legislation or a minimum wage is proposed. Thus the parties have followed rather than led public opinion; organizations seeking reform must win common recognition of their policies before the political parties will touch the issues.

Leadership

The writers of history have frequently exaggerated the influence which individuals have exerted upon the social changes of their time. No single leader was responsible for the Reformation, the fall of Rome, the Russian Revolution, or any of the striking events of history. The ebb and flow of economic power, the rise of corruption within an institution and of a counter agitation, the subtle shifts in social estimates, the solidification of group sentiments — these elusive forces appear to modern students as the decisive ones in social life and movement. Accumulated discontents must be there before sufficient propulsive power can be placed behind the program of an individual to make it a creative factor in history.

When this has been said, sufficient qualifications must be added to place the rôle of the leader in the proper perspective. The experience of each individual is unique, and the proximity of ideas in one person's

mind may differ markedly from that in the minds of others of his generation. Thus somewhat unique programs of far-reaching significance may originate in the mind of an individual and radiate through a social group to fix its attention and focus the driving energy of its unrest. Remarkable qualities for the influencing of men (extraordinary oratory, energy, earnestness, physical impressiveness) may magnify the effect of ideas. Around such a figure as Alexander or Caesar or Napoleon may center the loyalties and the hopes of millions of human beings and, within the bounds of subtle social limitations, the power of one personality may accentuate social changes. Leaders are not merely the product of a situation, but they are the molding factors in a situation. Their very conspicuousness has led their influence to be overrated until all history appears to some as "the story of a succession of great men."

In the field of labor agitation such figures as Henry George, Eugene Debs, William Haywood, and Samuel Gompers have appeared. Among the "liberals" who have espoused various measures of social amelioration, there are to be found Jane Addams, Theodore Roosevelt, William J. Bryan, and Woodrow Wilson.

Over short periods of time the leaders guide social destinies in the sense that it is possible for them to select and keep before the public certain particular proposals, and to reject and suppress certain others. The agitators who sponsor unusual measures which have not yet received the stamp of approval by a large section in the community must pay the price of appearing in the eyes of their fellow citizens as "knockers," "misfits," "wild-eyed radicals," "irresponsible disturbers," and the like. When a measure becomes sufficiently popular to promise success within a reasonably short time, another type of man takes it up. He is the "far-sighted statesman," the "advocate of sane progress," "the conservative in motion." This has been the history of woman suffrage, the eight-hour day, the movement for public ownership of utilities, and scores of other public measures which have attracted the attention of the public.

Social management is a matter of securing the strongest leader for a measure already somewhat popular, and of building a "backfire of public opinion" for the questions not yet regarded as expedient.

Each political generation, which lasts about twenty years, is likely

to have an influence on political action because of the necessity which the younger leaders feel of differentiating themselves from the older leaders by the advocacy of distinctive measures. Thus in American history there has been an observed tendency for twenty-year cycles to appear.[1]

[1] See the summary in A. M. Schlesinger, *New viewpoints in American history.*

XXI. MECHANISMS OF PUBLIC CONTROL OF LABOR PROBLEMS[1]

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The lot of many women in industry from time to time has aroused the sympathy of men and women of prominence who have encouraged inquiry into the causes and consequences of their conditions. Labor leaders have begun to recognize that jobs of men are menaced if women workers are ready to offer their services to employers at low rates. Social workers, students of working groups, and other citizens have pointed out that boys and girls of the coming generation must be well-born and well cared for, and hence the women of today must not be permitted to work at wages which fail to give them sufficient income to maintain good health.

An awakening of public interest in these facts and others of a related character has produced what is called a "minimum wage," of varying types, in twelve states. The term minimum wage is applied to the type of legislation we are considering because such laws provide in general that no employer shall pay wages below the level set by the authority of the state. The laws do not try to tell the employer how much he can pay over the minimum. In general, these laws may be divided into two groups: the laws setting a definite figure for the entire state, the so-called "flat rate" type of law; the laws leaving the determination of the wage to the discretion of wage boards established by law which may set rates from time to time, rates that vary from place to place and from industry to industry. The latter group represents the prevailing practice, for it was soon discovered that the differences between places and industries are so great that a "flat rate" throughout the state would work great injustices. For example, a clerk in a small-town department store does not

[1] Reprinted by permission of the publishers from *Labor attitudes and problems*, by W. E. Atkins and H. D. Lasswell, Prentice-Hall, Inc., 1924, pages 481–494.

have to pay as much for rent or food as a clerk in a large metropolitan center. Moreover, some industries, like the clothing trade, are seasonal in their nature, and an attemtpt to assure a living wage should take some cognizance of this fact; it should recognize that a worker must be paid a higher rate while employed, in order that he may have a living wage throughout the year.

Minimum wage standard

Attempting to decide what sum should constitute a "minimum wage" is not a simple matter. An Australian court once defined it as a sum sufficient to cover "the normal needs of the average employee regarded as a human being living in a civilized community." But what are these "normal needs"? Should the worker have enough money to buy meat twice a week, to pay the premium on a life insurance policy, to attend motion picture shows once a week, to contribute to his church, to purchase tobacco, to possess an extra pair of shoes, to build a bank account? Indeed, who is the "average employee"? There are single women, women with little education and simple needs; there are women who must support a family. Should the wage of women be the same as that for men doing similar work? And is industry able to pay the wages that will make it possible for the worker to meet normal needs? Two sides exist on all these questions. The rule which has been widely subscribed to as a principle is (*a*) that a man must usually support a family sometime or other in his career, and that the male worker's wage should be computed on the basis of the minimum necessary to support in decency a wife and three children; (*b*) that a woman is not characteristically the sole support of a family, and hence women's wages are usually set at a rate sufficient to support her alone. Yet it is clear on a moment's thought that any given minimum wage based upon such general conclusions in a given case may be far from what are the needs of, say, one particular worker, and always there are very definite limits, imposed either by legislation or the necessity of not overburdening the employer, that affect the conclusions reached.

Justification of minimum wage

Despite the many difficulties involved, the broad principle and the general justification of the minimum wage is clear. It is very doubtful

if the community can afford to permit human beings to work for wages insufficient to procure wholesome food and some of the comforts of civilization. Human beings are more than cattle, and in the words of Father Ryan, "They have a claim on society for a minimum wage merely because they are human."

Authorities who have investigated the history of minimum wage legislation in Australia, England, and the United States are inclined on the whole to agree to its success. The conclusions of John R. Commons are:

(1) that it has raised wages; (2) that minimum wage rates do not in general tend to become maximum rates, as some of the opponents of the legislation have contended; (3) that it does not necessarily force workers out of industry; (4) that it does not unduly handicap employers; (5) that it does not undermine trade-union organization; and (6) that it does not decrease efficiency.

Labor unionists once opposed minimum wages even for women on the ground that workers would look to legislation rather than the union for help and that the union standard of a "fair" wage is preferable to the state's standard of a "living" wage, but in operation it does not appear that the cause of unionism has much to fear from minimum-wage legislation.

Hours of labor

Many families find themselves under a powerful incentive to keep their children out of school and put them to work for whatever they can earn. As a result, many children are deprived almost totally of schooling, put at jobs that lead nowhere, and are not prepared for desirable citizenship. Even when education laws require children to go to school until they are sixteen years old unless the parents are in need of their earnings, children are found working ten or more hours a day. A demand arose, therefore, for the limitation of the hours of children's labor, and Illinois paved the way in 1903 by establishing an eight-hour maximum for children under sixteen.

Working women are often the mothers of families, and if they work long hours, they are often cut off from the effective oversight of the home. Moreover, women are generally regarded as less physically fit to work long hours than men, and an attempt has been made to limit the length of their working day. Thus the maximum eight-hour day for women

has been adopted in a number of states, and several others have a ten-hour maximum set by law.

The hours of work by men also have been limited. Because of the peculiar hazards attending long hours of work on railroads, the state in many cases has acted to decree maximum hours of employment. In the case of workmen laboring in smelters and mines where the work is supposed to be especially unhealthful, there has been a special demand for the legislation that has been enacted.

In general, hours of work are considered to be subjects for the contract between the worker and the employer, and, unless exceptional health hazards exist, laws even if passed by the states are very likely to be declared unconstitutional by the Supreme Court of the United States.

Safety and health

Modern industry is dangerous. The new machinery introduced since the Industrial Revolution left in its wake a train of accidents — arms clipped off by buzz saws, bodies crushed by falling cranes, hands crippled by steel hoppers. When a workman was injured the community as a whole often found it necessary through various methods to step in to feed him and his family, to educate his children, and to provide them a lodging place. The employer found it necessary to hire and train a new man, with the consequent loss. Thus society's, the worker's, and the employer's costs combined to lead many people to urge safety legislation. This agitation resulted in the passing of a series of Acts designed to prevent accidents through requiring certain safeguarding equipment, and to compensate for injury done.

Less spectacular than a mine explosion or the maiming of a worker through some abrupt accident is the steady depletion of the health of workmen through occupational disease. A possible classification of these hazards for purposes of legislation and control includes: (1) dangerous gases, acids and dusts (poisonous and non-poisonous); (2) harmful bacteria and micro-organisms; (3) compressed or rarefied atmosphere; (4) improper lighting; (5) extremes of temperature and humidity; (6) excessive strain. So far, social action in the United States has been largely limited to requiring certain precautions to be taken by industries whose operations may injure the worker's health, but there is commonly

no remedy for the workman who catches a disease after such precautions have been taken. So harshly does this fact bear upon workmen and so patent are the effects of such disease that courts have had a tendency to stretch the accident compensation provisions of the various Workmen's Compensation Acts, to cover cases of occupational diseases. Moreover, age limits are sometimes established for the more dangerous trades on the ground that older people will be more conscious of the risks they are undergoing and hence less likely to take chances, and physicians have been made responsible for reporting deaths due to any cause which seemed to be connected with the industrial task of the worker.

Regulations in behalf of making the worker secure from accidents are common. The sale of machinery without mechanical guards has in some instances been prohibited. Speaking tubes, electric bells, fire alarm systems, and other modes of communication are required in various industries. Exits, fire-fighting appliances, lighting, heat, ventilation, and boiler inspection are common subjects of control. Seats to reduce the strain of work, standards of usefulness and cleanliness for dressing rooms and toilet rooms, thorough washing of overalls, neck, hands, and gloves — these and thousands of other requirements show the degree to which the state has acted for the safeguarding of the life and health of its workers and citizens.

The early safety laws were poorly drawn and badly executed. Indeed, the history of safety legislation has been largely in the direction of setting general standards and authorizing adequate administrative machinery. The shortcomings of our earlier legislation in these fields were: (1) the absence of knowledge as to the scope, nature, and cause of accidents, and (2) the fact that commonly no provision was made, in the law-treating machinery, to administer the provisions of the law from day to day through constant inspection and study.

When Illinois passed its first mining law, for instance, it was provided that the mine workers were to have "a sufficient supply" of pure air. But no commonly accepted standards of what constituted "a sufficient supply" existed, and the enforcement of the Act was left with inexpert county officers. An example of specific provision eliminating the danger of general law being interpreted so as to be worthless is found in the modern Illinois code which provides that the miners are to be supplied with

air currents moving at a certain velocity and according to a certain route, the administration of the law being vested in a state bureau of competent men.

Miscellaneous social legislation

Many pages could be devoted to discussing a host of other regulations which the states from time to time have thought necessary or desirable and which directly affect the worker. Housing regulations, ordinances of cities, the activites of boards of health and of a thousand other agencies act in behalf of what the community conceives to be the social good. Those who are likely to benefit most directly from such regulation are the workers with the smaller incomes, who lack both the means and the education, commonly, to provide properly for themselves and their families. Further safeguards include organized employment exchanges and various forms of insurance.

Settlement of disputes

Disputes between employer and employee have caused an enormous social loss not only in the United States but in every modern industrial country, and the community has consequently insisted upon a progressively larger measure of government intervention in the hope of mitigating the costs of conflict.

Mediation

Mediation is one form of adjusting disputes. The mediator tries to induce the two parties to talk matters over, to grant concessions, to work out some kind of an agreement. Sometimes the mediator is able to devise a proposal, which is accepted by both sides, to bring an end to the dispute. The difficulties of the mediator are quite obvious. He appears on the scene after the conflict has begun, as a rule, and he has neither the power to compel parties to testify, nor the power to postpone the conflict while an impartial investigation is made. Moreover, the would-be mediator may be suspected of prejudice, and, if tactless, he may leave the situation worse than he found it.

Voluntary arbitration

When mediation fails, resort is sometimes had to intervention. It may be through some system of voluntary arbitration. This type is the

result of an agreement between the parties to a dispute to submit their differences to a third party and to abide by his decision. The various states usually have a secretary of labor, and he frequently is a member of the board to mediate or urge voluntary arbitration when industrial disputes arise. The President of the United States and the United States Secretary of Labor often have functioned as mediators and arbitrators. Voluntary arbitration, it should be noted, goes one step beyond mediation, since the parties commonly are more definitely committed to the acceptance of the decision of the arbitrator. Mediation, on the other hand, is a mere extending of good offices after conflict has arisen.

The public must have the facts if it is to pass an adequate judgment on any industrial dispute. In many places boards have been set up to summon witnesses and take testimony relating to the disagreement, either upon the request of a party to the issue or on their own initiative. Not having power to make awards, the commission of inquiry must trust to the hope that the publication of its report will clarify the situation and thus make it possible for the public an intelligent judgment on the matters at stake. Such a board was the United States Railroad Labor Board which, although limited in power to the extent of simply carrying on an inquiry and publishing its findings, attempted to exercise control over disputes between the workers and railroad managers.[1]

Compulsory investigation

It is but a step from the existence of a commission of inquiry to the extension of its scope. As a result of a prolonged strike in certain coal fields, the Canadian Industrial Disputes Act was passed in 1907. This Act makes it unlawful in certain classes of industries involving the public interest (public utilities and mines) to change the terms of employment without thirty days' notice, and requires that the old terms shall operate during the period of investigation in case a dispute arises. During the interim a government board, composed of one man nominated by the employers, one by the men, and one by the Minister of Labor, investigates the facts and makes recommendations. It is unlawful to strike or to lock out until the findings have been reported. Thereafter no restrictions exist, and if the findings are not accepted a strike can follow.

[1] This Board was disestablished in 1927. — The Editor.

The law has been popular with many employers. Among the workers it has found support among railroad employees, but other classes of workers have at times opposed it. The chief complaints of the workers are: (1) an arbitration board nearly always feels bound to compromise, to split the difference between the claims of one side and that of the other; (2) the conditions of work are said to be whatever the workers can force the employers to agree to; (3) to announce the intention to strike at some future date makes it possible for the employer to import strike-breakers, shift his orders to other factories, and thus reduce the value of the strike; (4) there is no guarantee that the employers will abide by the terms of the award suggested by the investigating commission.

Colorado adopted what was virtually a replica of the Canadian Act in 1915, and there has been widespread agitation for its adoption elsewhere.

The Kansas Court of Industrial Relations

The coal supply was short and the winter was setting in when the miners of Kansas threw down their picks and joined the bituminous workers of the country in their 1919 strike. The governor of the state went so far as to attempt to operate the mines by the use of college students and volunteers of every description. While excitement was still intense, the legislature convened, and in one short session there was introduced, debated, and passed a law creating a court which in operation simply applies the principles of compulsory arbitration to industrial disputes.

The Court of Industrial Relations created by the Kansas law [1] consists of three judges appointed by the governor for three-year terms. The manufacture and transportation of all goods in common use, such as food, clothing, and goods providing shelter are declared to be affected with a public interest, and disputes affecting them are subject to the Act. In case of controversy the court can summon the parties before it for purposes of investigation, either upon its own motion or upon complaint

[1] Declared unconstitutional, 1923, by the U.S. Supreme Court in the case of the Woolf Packing Co. *v.* the Kansas Industrial Court, 262 U.S. 522. The law is of interest here, however, because of the very fact of its unconstitutionality and also because it is the only attempt at compulsory arbitration, on a comprehensive scale, that has been made in this country. — The Editor.

of ten tax-paying citizens of the localities affected. The industrial court is authorized to sue in the supreme court of the state to enforce its awards.

Compulsory arbitration is opposed at present by most American unionists, for they claim that in its operation, such a law tends to fix the status of labor. Samuel Gompers once said in regard to labor: "Labor wants more, and more, and more, and by heaven she's going to get it."

What are the facts of compulsory arbitration experience? The Kansas experiment, already restricted if not killed by court action, does not permit of generalization, but the Dominion of New Zealand and the Commonwealth of Australia have had compulsory arbitration in various forms since 1894. In spite of some dissatisfaction with it, they have retained the chief features of the system. As in Kansas, despite the law there have been many strikes in these places. It is difficult, however, to determine how many strikes would have occurred if these laws had not existed. It should be noted here that both the New Zealand and Australian laws had to be amended in 1908 in order to get back to collective bargaining, since the governments were tending more and more to usurp the functions of the unions.

Among the leaders of labor there are a few who do not dissent from the idea of an industrial court. They think that it will tend to set up certain minimum wages and conditions of work, and thus evolve a sort of minimum-wage law. It may, furthermore, prevent some of the unemployment and vicious wholesale cutting of wages in periods of depression. As for constantly obtaining a rising standard of living which others say the court will not recognize in practice, these labor leaders feel that in a democracy this higher standard of living must be won, to an increasing extent, by labor solidarity in the political field, not through violence in the industrial field. It cannot be said, however, that this point of view is generally accepted by labor in this country; it is representative merely of the opinions of a minority.[1]

Early railroad dispute legislation

The history of legislation attempting to secure the coöperation of employers and employees in the railroad industry in the United States illus-

[1] A very small minority against which the A. F. of L. opposes its whole strength. — The Editor.

trates some of the difficulties arising when various devices are used to promote industrial peace.

During the eighties, labor interests commonly favored arbitration; many went so far as to advocate compulsory arbitration. This can be explained by the fact that the railway labor organizations, on the whole, were relatively weak. Arbitration, compulsory or voluntary, promised to secure more for workers than did striking or the threat of a strike. Naturally, therefore, they turned a friendly ear toward agitation seeking arbitration. On the other hand, management did not favor arbitration; it wanted no interference by the government. This was to be expected, for management, because of its superior power, felt able to discipline labor effectively. The law of 1888, which was the first Act by the Federal government seeking to settle railroad labor disputes, provided for voluntary arbitration and for investigation. The arbitration feature of the Act was never used and the investigation feature was called into play but once, during the Pullman strike of 1894. Meanwhile changes were going on within the railroad field, and organizations of workers were gaining in power.

The Erdman Act

In 1898 the Erdman Act succeeded the Act of 1888. It provided for mediation and voluntary arbitration in controversies affecting employees engaged in operating trains. To the chairman of the Interstate Commerce Commission and the Commissioner of Labor was given the task of trying to effect a settlement of disputes upon application of either party to a controversy. This legislation had the merit of creating a permanent board of conciliation. Should they fail in mediation, it was the duty of the members of this board to work for voluntary arbitration. The Erdman Act was unused during the first eight and a half years of its existence. Thereafter it was frequently invoked and with considerable success, the cases totaling sixty-one.

In 1912, the railroad problem came to the front in a threatening form in the demand of the Brotherhood of Locomotive Engineers of fifty-two railroads in the East for wage increases. The board created by the Erdman Act tried to induce a settlement. It failed. Finally, however, a board of arbitration was agreed to which consisted of recognized authori-

ties representing the railroads, the workers, and neutral parties. The details need not be given here, but part of the report expressed the growing impatience of the public mind in the following words:

> It is an intolerable situation when any group of men, whether employees or employers, have the power to decide that a great section of the country, as populous as all of France, shall undergo great loss of life, unspeakable suffering, and loss of property beyond power of description through stoppage of necessary public service.

Meanwhile, the trainmen of the East presented demands to the roads for increased pay and for changes in work conditions. President Wilson called a conference to attempt to forestall a strike. The representatives of both sides agreed that if a bill before Congress at that time were passed they would allow their controversy to be settled under the terms of the new Act. This called into existence the Newlands Act.

The Newlands Act

The Newlands Act provided for the creation of a commission of mediation and conciliation, gave authority to this board to initiate action in settling disputes, provided for the interpretation of the award in case of any misunderstanding of its terms, and permitted the board to take more than thirty days, if necessary, in order to reach a decision. The experience with the Newlands Act demonstrated that again mediation was of more importance than arbitration. Moreover, during its life we find increasing opposition to arbitration on the part of the workers. The arbitration of the dispute of the Brotherhood of Locomotive Engineers and the Brotherhood of Firemen and Enginemen with the railroads of the West brought out this opposition in bold relief. Although the case was settled, the decision was unsatisfactory to both sides, labor interests in particular criticizing it. Complaint was made that Mr. Nagel, who served as a neutral member, was not neutral, for he was trustee of an estate holding railroad bonds which might be affected by an arbitration award. All of these facts revealed a growing tendency of labor to oppose arbitration. Mr. Lee, of the Brotherhood of Railroad Trainmen, explained this opposition as follows:

> A board of arbitration, regardless of how fair-minded its members may be, naturally reaches the point, when its own interests are affected, of arbitrating

its own case rather than that of the employees affected. This is said without any reflection on the personnel of the arbitration boards. The results of arbitration fully justify the position now taken by the railway employees against like happenings in the future.

A similar view was expressed by Mr. Carter, president of the Locomotive Firemen and Enginemen:

After years of experience under arbitration, I reached the conclusion that the labor question is not arbitrable if the workingmen hope to secure justice in the results.

The Adamson Law

December, 1915, brought forth the demand of the Brotherhood of Locomotive Engineers for the eight-hour day and a statement that they would not arbitrate the issue. All efforts to get the men together with railroad officials failed, although the latter asked the men to join with them in requesting the intervention of the United States Board of Mediation and Conciliation. President Wilson asked both sides to come to Washington, and on August 29, 1916, appeared before Congress asking and securing the immediate passage of a law recognizing the eight-hour day. Four months later Mr. Carter defended the opposition of a great part of the strongest unions in the railroad field to arbitration with the following arguments:

(1) The roads had manufactured a public opinion that would have been hostile to the men. (2) The standard of the United States Board of Mediation and Conciliation for the selection of neutral arbitrators had proved in the Nagel case to be unfair and partial. (3) The statistical evidence presented by the roads, although partisan and not scientific, would have overwhelmed the neutral arbitrators. (4) The influence of precedent would have operated against the men. (5) The railroads, while proposing arbitration, refused to permit about seventy-five of the smaller roads to participate in the arbitration. Some of these smaller roads, on their part, believing that they might succeed in winning a strike because of the relatively smaller number of their employees, refused to delegate authority to the railroads' committee to include them in the arbitration. The employees were not willing to arbitrate with only the larger roads. Furthermore, the railroads refused to permit the locomotive hostlers of about eighteen roads to participate in the proposed arbitration. Also, the railroads refused to include in their proposed arbitration white foremen, brakemen, and hostlers on many railroads. No negro employee was to benefit

by the arbitration. (6) The award would have been administered by the managers in accordance with their own interpretation of its meaning.

War-time control of railroads

Federal control of the railroads began on December 28, 1917, and immediately thereafter the Railroad Wage Commission was created by the order of the Director General of Railroads, Mr. McAdoo. Later a Board of Railroad Wages and Working Conditions was established. In Circular No. 31, June 1, 1918, Mr. McAdoo outlined the duties of the board:

It shall be the duty of the board to hear and investigate matters presented by railroad employees or their representatives affecting:

(1) Inequalities as to wages and working conditions, whether as to individual employees or classes of employees.

(2) Conditions arising from competition with employees in other industries.

(3) Rules and working conditions for the several classes of employees either for the country as a whole or for the different parts of the country. The board shall hear and investigate other matters affecting wages and conditions of employment referred to it by the Director General.

Transportation Act of 1920

On March 1, 1920, the railroads were returned to private control under the authority of the Transportation Act of 1920. The principal provisions of this law are: (1) Both employees and employers are called upon to exert every possible effort to adjust these disputes so as not to interrupt interstate commerce. Failing to agree, they shall refer their difficulties to a railroad board authorized by the Act. (2) Local or regional boards may be established by any carrier or group of carriers and employees to decide grievances not decided as provided above. (3) A Railroad Labor Board is created, consisting of nine members, three to be appointed by the President from a group of six names suggested by the carriers, three from six names suggested by the employees, and three members named directly by the President. (4) No member of the board is to hold a position in a railroad labor organization or be financially interested in any organization of labor or any carrier during his term in office.

The Railroad Labor Board

The Railroad Labor Board has disputes brought before it in one of three ways:

1. Upon application of any carrier or any organization of employees.
2. Upon petition from one hundred unorganized employees.
3. Upon the board's own motion.

On wages the adjustment boards have no jurisdiction. The law creating the Railroad Labor Board goes farther and lays down the following criteria of what is to guide the board in determining fair wages:

1. The scale of wages paid for similar kinds of work in other industries.
2. The relation between wages and the cost of living.
3. The hazards of the employment.
4. The training and skill required.
5. The degree of responsibility.
6. The character and the regularity of the employment.
7. Inequalities or increases in wages or treatment, the results of previous wage orders and adjustments.

Of the nine members on the board, five must agree in any decision, and if the question is one of wages, at least one of the public group must concur. All the necessary machinery for investigation, subpœnaing witnesses, taking testimony, and so forth, exists. Above all, the board may publish its findings. Thus, in essence, the Transportation Act of 1920 relies upon enlightened public opinion to force the acceptance of its awards upon both the carriers and the employees.

During 1920 and 1921 the board approved of wage increases involving almost $1,000,000,000 and adjusted many other disputes and grievances. In 1922 the board ordered wage reductions. One very serious strike occurred, and in a number of cases certain carriers engaged in tactics that were clearly in violation of the spirit of the Act, only to be tardily brought before the board and reproved. Whether the board, as it is now constituted, will survive as an agency standing between carriers and employees is not certain.[1] Yet it is certain that the public does not intend to let unrestricted warfare be the rule between employers and employees engaged in running the railroads.

The future of community action

It would be unsafe to generalize about the future of community action relating to labor conditions, . . . yet certain trends seem to be observ-

[1] The Railroad Labor Board was disestablished in 1927. — The Editor.

able. In the first place, the public is less and less tolerant of interruptions and violence in those industries which concern its welfare directly. This intolerance is due largely to the fact that modern industrial society is more interdependent than ever before, and the intricate web of relations which bring food and clothes to the consumers is becoming more and more vitally important. The tendency toward compulsory arbitration and other forms of authoritative intervention seems to be growing. The willingness of the government to use force to protect property and continuity of employment, the decision that labor unions are liable as groups for the violations of property and liberty committed in their name, are two further indices of the same general movement. A second trend may be a growing conviction among labor leaders that the government must be won over by successful political campaigning in order that the compulsory power of the state may be used in the interest of the labor group. As yet, the positive evidences of this are few in number. Third, there is a growing effort to forestall disputes by the establishment of permanent commissions to watch the changes in the industry and to hear disputes in their incipient stage before they become fighting issues.

XXII. RECENT TRENDS IN COÖPERATIVE MARKETING [1]

By Benjamin H. Hibbard
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Looking back over the history of coöperative marketing in America, a history now covering a little over a half century, we can discern about three phases, with minor variations of views and practices. In the earliest years, those of the Grange and the Farmers' Alliance, there was a clear-cut, dominant conception of the marketing problem. It consisted mainly of an appreciation of the undoubted fact that there was a wide gap on the one hand between the prices paid by the farmers for finished goods and the prices received by the manufacturers for the same. On the other hand there was a similar wide gap between the prices received by the farmers for their produce and the prices paid for the same by buyers in, or beyond, the wholesale market.

Early days of coöperation

With a concept so simple and so definite concerning an evil so easily diagnosed, the remedy was little short of obvious. The difficulty to be overcome, i.e., the evil in the economic world causing farmer distress, was a middleman affair. True, the railroads figured largely in the minds of the Grangers, and just as true, the control of the price level became an issue with the Alliance, but, nevertheless, the main concern of the coöperatives so far as there were any, and the main idea in the minds of those who inspired the organization of such coöperatives, was that of "shortening the road to market."

So far as anything in the nature of an economic theory was expressed by the leaders in those early days of coöperation, it was nearly always a statement of the relation of cost of production to value, with the naïve

[1] Reprinted from the *Annals* of the American Academy of Political and Social Science, vol. CXLII, March, 1929, pages 414–418.

inference, if not assertion, to the effect that a producer was entitled to his costs. This view was enforced by a declaration that business people, other than farmers, always were able to compel the payment of a price sufficient at least to cover costs. Just how this was accomplished, no one took the trouble to explain, but it was assumed that something in the nature of monopoly was present not alone in the charges made by railroads, but also in the general run of prices charged by manufacturers for their goods. In fact the Granger activity is often referred to as an anti-monopoly campaign. The Grange, and in a great measure the Alliance, was impressed first and last by the middleman margin. Bringing the producer and consumer together was the one great goal of the farmer organization efforts for a period of over twenty years near the close of the last century.

This view implied a concept on the part of the leaders of the day of a market which was relatively, if not positively, good, if only it could be reached; that is, reached without too great an expense. These were the days of the greatest production per capita yet experienced in the United States. We were producing over nine bushels of wheat per capita, and enough meat so that after selling some twenty-five pounds per capita abroad, we had left enough to provide us with a pound per person daily. If we ate that amount, it was a great feat, sufficient to account for the failure to reach the ideal in physical health. Yet with this enormous output, even increasing output, it hardly occurred to any one of the farmer spokesmen of the day to remark that the market was oversupplied.

This may be due to the persistent fact that, no matter what the price level, there was always and ever the wide, unaccountable margin between the prices received by farmers and the prices at which the goods sold a little later. This view was expressed tersely by a western editor who remarked that it took four bushels of Iowa corn to get the fifth one to market. The market alluded to in this case was New York City, and the inference was that western corn prices were made in New York City, the farmer getting that price minus freight and middleman deductions. That there were too much corn, too much pork, and too much wheat escaped the observation of the leaders of that generation. Nor is this comment a refutation of the supposed fact that middleman charges were unfortunately high. They were; but the other set of facts and

forces was fully as important, and to us at the present time distinctly obvious.

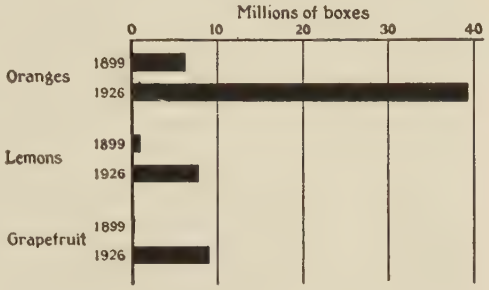
The farmers of the last century, and their friends, were not alone in mistakes of the sort pointed out. They were, no doubt unconsciously, looking to some group other than their own on which to lay the blame for lack of farm prosperity. These other groups were no doubt guilty of the charges made, at least to a great extent. It may be more attractive to the aggrieved party to undertake the removal of the mote in a brother's eye rather than the beam from his own. The feasibility of the operation is, however, usually another matter.

The farmer movement of the last century was distinctly influential in bringing some semblance of order into the chaotic world of transportation. It left unconquered the field of the middleman. More recent marketing movements — the second type coming into vogue early in the twentieth century — have changed the center of gravity of farmer influence. It was at that time that the farm leaders first came to a realization of the fact that the quantity produced was a major factor in the price equation.

Efforts were made to curb production in the interest of higher returns for the quantity put on the market. This was tried most conspicuously in connection with cotton. Over and over the coöperative group advised the planting of a smaller acreage only to find, with one or two exceptions, that the results were negative. One would be justified in saying *positively* negative, since without doubt the advice, instead of being ignored, led to a move in the opposite direction, with the result that the acreage was greater because of the advice, coupled with the hope that it was likely to be followed by the majority, thus making a larger crop desirable from the standpoint of the individual. Whatever other explanations may be offered for the actions of the coöperative leaders of 1902 to 1916, or thereabout, it will be necessary to admit that they came to a realization of relationship of quantity to price, and made an effort to fit the supply to the demands of the market.

Almost at the same time came the counterpart of the campaign for smaller output, viz., an attempt to stimulate the demand. The California Fruit Growers' Exchange was one of the first companies to realize the advantages of this procedure. People were advised — on the advice of physicians — to keep their systems alkaline, and later to eat oranges

because of their antiscorbutic properties. All of this meant more oranges without a lowering of the price. The raisin people taught the world how to sell a larger quantity by taking a carload to the city sidetracks and at the same time advertising liberally the qualities of raisins. Various milk associations put on milk campaigns, furnishing free milk to certain school children, with a certificate of growth and health improvement during the period of the experiment. All of which is very fine for groups that are immediately interested. But in the meantime someone else was selling fewer apples because of the increased sale of oranges, and still someone else fewer currants, cherries, or raspberries because of the augmented raisin sales.



THE TREND IN CONSUMPTION OF CITRUS FRUITS IN THE UNITED STATES

An example of conditioning consumers' demands. Data source: *Survey of current business.*

Conditions after the World War

During the period just following the World War came an unprecedented growth of coöperative marketing companies. There were developed two unrelated lines of effort in solving the marketing, or price, riddle. First in the field came the advocates of a mild, but clear-cut, monopoly. The producers were admonished to organize, get control of some certain amount of the produce, usually somewhat more than half. This control was expected to serve as the basis of price-making, by, and to the advantage of, the producers so organized. While there may properly be grave doubts as to the possibility of creating a price-naming body by these means, there was, by all means, the possibility of creating a bargaining group with sufficient power and skill to demand, and get, the best price which the circumstances of the case permitted — an achievement of no small moment. A large part of the organizations, and several of them of notable size, overshot the mark in their zeal to aim high, and came to grief.

Still another distinct line of effort manifested itself just after the close of the war. This was the attempt to bring the power of the government to bear on the case in a direct manner. The advocates of this plan had evidently lost faith in the voluntary coöperative movement, and wanted to make coöperation compulsory by providing a means of reducing supplies to an ideal level (from the producers' standpoint) and compelling all alike to stand the expense of the transaction — the charge to be added to the consumers' bill. This plan is unique at any rate. Should it ever be tried, and found feasible, there would logically be a demand to adapt it to all lines of manufactured goods. In fact some farm goods, so-called, such as butter, are the results of manufacturing just as clearly as are the products of the tanneries, the sawmills, the reduction mills, and the blast furnaces. Whatever may be the merits of this type of government interference and control, it is evident that the proposal is not likely to be given a trial in the near future.

This brings us to the third main line of effort, the last two items mentioned being in the nature of episodes, a remark not at all intended to belittle the effort to put the burden of marketing into the hands of the government. This third effort involves two main parts: The first is that of a direct control of supply. The second is an attempt to adapt the supply to the demands of the market.

In the control of supply we have made but modest progress. The best instances thus far are probably those of the supply of milk for a given market. This control is all the more likely to succeed because it is by no means either arbitrary or drastic. For example, in the Milwaukee and other milk markets, a dairyman is paid a certain price, arrived at through bargaining, for a designated, "basic," amount of milk. For added amounts he receives a price based on a lower use, as for the manufacture of butter or cheese. This provision has resulted in a smaller surplus during the months of greatest supply than was ever before known. The dealers are not subjected to the losses attendant upon caring for a commodity they do not want, and the farmers are rewarded for adjusting their supply, at least in part, to the demand.

Another recent development is observable in the sale of butter. It was found by a group of Minnesota creameries that the demand for butter of a certain kind was greater than the supply. This group, greatly

enlarged, has been able to supply the market with more and more of the desired kind of butter, and conversely the market has shown a remarkable capacity to absorb a great quantity of this grade of butter at a price distinctly above the general level of butter prices. Here is a case of finding what the market wants and profiting by it — an old practice in the manufacturing world, a new one in agriculture. It will be asked what will happen when the creameries of the Northwest furnish enough of this kind of butter to supply the palates of the consumers? Will it mean that the premium for this grade of product will be lessened? Undoubtedly. But the advantage of a supply controlled with respect to quality will always have an advantage over the miscellaneous products, and the well-trained, well-organized, producers will be in a position far superior to that of the rank and file of those on the outside. The organization will, for example, be able to pay its own members on the basis of quality, whereas the usual thing of the past has been to make little, if any, distinction in this respect.

The recent cotton studies being made in the Bureau of Agricultural Economics should result in nothing short of a revolution in the marketing processes. Thus far the most excellent cotton has hardly brought more than that of ordinary quality.

Present-day trends

It would, therefore, seem that the trend of the present up-to-date coöperatives is in the direction of one or all of the following results: First, in conquering the market as it now exists. This is being done conspicuously by the citrus growers, and by the Canadian wheat pools. In a sense this is a development of the earliest ideas such as dominated the Grangers. Second, the adaptation of the product, especially regarding quality, to the demands of the trade — exemplified by the Land o' Lakes creameries, and in prospect for cotton coöperatives. Third, control of output. This is the latest, and might in a sense be viewed as the last field to be entered — yet with the hope of some success at least, even though it may never be conquered. The best instances of attainment are within the restricted areas of city milk markets. Producers for the Philadelphia market are controlling their output quite definitely. The lemon growers limit the shipments to the general trade, using the surplus as a by-product. The walnut growers do the same.

It must be admitted that thus far, where the best results in relation to a great agricultural product such as wheat are involved, the most hopeful program is that of studying the market, and adapting the supply to it, rather than attempting a control over the supply. Coöperatives shrink from an attempt to control supply; yet in all business success on a large scale, undoubtedly the greatest results in marketing have come either from offering goods more desirable than the general run; cutting costs so as to meet all competition; or, where circumstances permit, limiting the output. Farmers are learning the same lessons, and the trend among the best coöperatives is in the same direction, or rather in one or all of the several directions. This is in contrast with the earlier efforts to reduce the middleman's profits by cutting down his margin, or the naïve method of undertaking to control output by fiat.

Just as business people generally have learned the advantage of volume in connection with their operations, the farmers are learning that successfull coöperation is closely associated with volume of transactions. It must be admitted that the best thought of the present day involves the main views of a half century ago, but in a more refined and feasible form.

XXIII. WHAT A FEDERAL FARM BOARD CAN DO: A BASIS FOR A NATIONAL AGRICULTURAL POLICY[1]

By Clyde L. King
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Proposals for American farm relief fall into four separate classes:

1. Money and credit.
2. A price on exports above the world market.
3. Tariff.
4. A strong marketing policy administered through a Federal Farm Board with ample powers and adequate money.

Let us examine the fundamentals of each of these in turn.

Money and credit

For many a decade our farmers felt the heavy hand of a high interest rate on a remorseless mortgage. These mortgages were usually of the term variety, the full amount due at a given date. Such terms were not suited to the slow annual returns of the farm. No big fees nor exceptional sales came along as windfalls, and growing families sopped up the annual increments.

Interest rates in pre-war years on farm mortgages were high for three quite sufficient reasons. In the first place, we were a debtor country, and our prevailing interest rates had to be high enough to attract capital from abroad and keep it here. In the second place, the heavy drain on farm incomes of a high interest rate on an inflexible mortgage tended in itself to make such mortgage a risk even to the investor. And in the third place the banker was more interested in the short-term loans to business and to manufacturers; and investors felt their money to be safer in the securities of railroads, public utilities, and industrials. And that not without reason. For the very security of such investments depended on

[1] Reprinted from the *Annals* of the American Academy of Political and Social Science, March, 1929, vol. CXLII, pages 439–447.

far-flung lines of transportation on the one hand and the development of industries on the other. As transportation systems extended into virgin territories, the land values back home migrated to the newer regions with the pioneer farmers. The left-over and left-behind labor from abandoned farms became the backbone of the factory town. The factories prospered from such labor and they stayed at home with the investor. Such sectional shifts at once caused the banker and the investor alike to look askance at the farm loan and to have faith in the industrial loan and in the loans to the public utilities that grew apace with industrial development.

Part of the irony of the situation is that during the nineteenth century the farmers' toil paid for the foreign loans, interest and principal, and these foreign loans largely made possible the cities that in turn attracted the capital that made the farmer's interest burden higher. Import of capital goods and the interest thereon can be paid for only by the export of goods — real hard-fisted goods — not promises to pay. For our first century the goods for this export could come only from our farms. We had no other substantial source. So we exported the ingredients of a virgin soil through crops grown by the hard work of farmers and so got the means in no small part to build the railroads that tapped new soil resources to compete with the established farms and to build factories and utilities to compete with farmers for capital.

In such wise did we build homes for a hundred million people in a hundred years — the great romance of all history. It was at the cost of a declining farm income, though with the advantages of rising urban income. And even then, people had the temerity to talk about "Back to the Farm."

But with the World War the facts shift, and with the shift in facts comes shift in credit legislation. We move from a debtor country paying a half billion dollars yearly in interest to foreign countries to a creditor country with a half billion of interest coming to us every year. Those who are working to rehabilitate Europe and to develop new countries in the newer continents now pay tribute to us every year — the new creditor country. Money comes in and gets plentiful. Interest rates fall. It pays to begin to look up the old farmer at last to see whether money cannot be loaned more profitably to him. "Yes, the interest

rate is lower." "Oh, the inflexible terms are hard on you." "We will get Congress to help." So we have the Farm Loan Bank and the Special Short Term credits and easy payment plans, supported by Federal security and aid. What would have been particularly helpful a generation ago, because farmers needed it, now comes easy, because investors also want it. But the substance had been changed at least: interest rates are lower to everybody, farmers included — and they promise to stay lower. So while credit legislation helps, and wise credit legislation should be encouraged, it no longer can be held to be a solution for our agricultural problems.

Not that our mortgage problems are at an end. Mortgages in the war years represented on the whole about one-fourth of our agricultural land values. But land values have so declined since that about the same mortgage total represents one-half present land values. In those sections where values continue to decline, our farm mortgage risks will grow. But granted the security of a stabilized agriculture, interest rates will be as low as those for comparable investments.

Another form of money and credit legislation of which farm interests should now be particularly watchful is that centering in the legislation creating our Federal Reserve System. That system has proved of great service to us in mobilizing credit and in nationalizing banking and credit policies. On the whole it is the most useful national legislation in this generation.

But other changing facts have inevitably (and properly) centered in this board powers of great import to all business and to agriculture in particular. In the gold basis days of pre-war years, the inflow and outflow of gold reflected the supply and demand for money in a rather logical way. But in these latter years the world of necessity has gone from a gold bullion basis to a gold exchange basis. That fundamental change gives new power to the rediscount policies and the marketing policies of the Federal Reserve Board. These policies can — and do — make money cheap or dear sectionally, nationally, or internationally. The use of this power farmers must watch with the same care that bankers and industrialists watch it to see that it serves the purposes — not of speculators — but of stabilized business. In this new sense the money problem will ever remain an important one.

Higher export prices

A second group of proposals for farm relief center around bolstering up the prices of our exported surplus. No one seriously proposes arbitrary prices, regardless of prevailing prices in the world market, but some do propose in one form or another to make the export price of our farm surplus higher, more or less, than the world price.

One such plan is the Export Debenture Plan. Exporters of farm surplus are to get certificates in certain amounts worth their face value in paying import duties. Such certificates would, of course, at once have a market value practically equal to 100 per cent of their face value. The amount per bushel of wheat or per pound of cotton or of pork or of pork products or whatever the surplus may be will be ascertained in different ways, but at least the amount has to be sufficient to have some economic effect on the producer; otherwise it is of no avail. In this plan the money going to the farmer would come out of the Federal treasury through lower customs receipts to the amount of customs duties paid for by these certificates rather than in money.

Other plans would take the money directly from the Federal treasury and allow some board to decide how much export subsidy should thus be paid. A third group would have this money come from the farmers through a so-called equalization fee. One of the ironies of politics is that many of those who objected to an equalization fee because it wronged non-participating farmers were soon saying — to win an election — that this subsidy should come from the taxpayers! In the long run, to be adequate and to be just, it must come from the farmers. But of this, more at another place.

Regardless of where the subsidy comes from in the first instance, let us examine the assumptions underlying this plan. Are there not these two assumptions?

1. Our domestic market will continue to use all or nearly all of these products, so that the surplus will not be large.

2. The world price will be sufficiently high so that this price plus the subsidy will mean a fair price to the American farmer.

Can we tie a permanent American agricultural policy to either of these assumptions?

Let us examine the first — the future of our domestic market. Many

are the people who argue thus: It is only a decade or so until our domestic market will consume all our farm products. Then we can place tariffs on agricultural products and keep farm prices up to an American living standard. So?

In the first place, we have tinkered with our birth rate. By restricting immigration and by emphasis on American living standards, our birth rate is not keeping up to old levels, nor are consuming mouths being increased by large numbers of adult arrivals.

I complain not of this. Much is to be said for a higher living standard: better health and better training of small families. But eating farm food is not one of them. We now have in this country about the same number of children in the first grade in our schools as we had six years ago. I do not conclude from this that our population increases of past decades will not continue. Of that we can be certain. Recent statistics tend to show at least no increase in birth rates in Europe. So the population grows more nearly static there also.

But the slowing up of birth rates is not the big fact. The big fact is that quantitatively per capita consumption is declining. While it declines, it shifts. It shifts in ways advantageous to some farmers, notably dairymen. But the big beef-eater has passed, and the gourmand. City life will not stand its pace on an overloaded stomach. Dietitians teach children not to overeat (unduly). We are all eating less (to our good), and we are eating lighter foods. We are eating more fruits, milk, vegetables, and less of the staples. But that does not help farm markets, on the whole, though it may for the time help dairy farmers or fruit, sugar, or vegetable growers. A declining per cent of the total family budget goes for food, leaving more of the income for other purchases. And so the manufacturer does not feel the decline in rural purchasing power as he otherwise would.

It seems, therefore, that our total domestic market for farm products will slowly and conservatively expand — but at a declining rate. And this declining rate comes just as scientific farming gives a terrific punch to increased production. The efficiency of agricultural workers has increased about 3 per cent per year since the World War.

Any one of two dozen factors now in use will *alone* take care of this increasing market. Here are just a few of them:

Better selection of dairy cows is giving an increased output with fewer cows.

Better feeding is getting better output from the same cows.

Motorizing farm work has already released by fewer horses some 10,000,000 acres of hay, 8,000,000 acres of corn and 6,000,000 acres of oats for other purposes.

Improved farm implements are increasing notably the output per worker. Better and cheaper fertilizers multiply production from the same acreage.

Land is being put more nearly on a full-time basis than ever before.

Manufacturing processes are utilizing foods for both humans and animals, heretofore largely wasted.

Recent improvements in growing and picking cotton are releasing large acreages in southern states for dairying and other purposes.

From 1920 to 1924 our farm population declined 10 per cent and our agricultural production increased 5 per cent. Our production right now is increasing more rapidly than our population. And so we might go on. Are we soon to have a deficit on our domestic market? Is it not just as probable that we could for a substantial period feed the industrial world? Who can foresee the end to profitable output under scientific farming? Who can face the facts and place any reliance on a deficit domestic market as the sole solution of our farm problem? Especially since the trend recently in our exports is *upward!*

There are some factors that should be weighed on the side of better domestic markets. One of these is a growing industrial use of present farm output. I refer to the use of cornstalks for paper and rayon, and of grain alcohol for gasoline, etc. But here again other substitutes offer, so as not to permit too rosy a view of this type of market so far as substantial increase to net farm incomes is concerned.

There is another easy assumption, and that is that the world market price plus any reasonable subsidy will assure the American farmer an American standard of living.

But there are changes going on elsewhere as well as here. All the changes making for increased output at lower cost going on here are being adopted elsewhere also in varying degrees. Thus Europe notably is learning to double her dairy output from the same pasture acreage by

better pasture cultivation and the use of fertilizers. At an increased cost? Yes. But not at a cost so much increased above returns. No, she will never double her milk output probably. But she will have greener fields and fewer acres in those crops, such as the cereals, that mean barren cultivated surfaces and hence greater soil losses.

Our virgin prairie and forest soils when put to agricultural production fed not only our cities but largely European cities as well, and we forced English and most continental agriculture well-nigh into bankruptcy. Such resources are gone with us, but in other climes, north and south, new acreages open up. Argentina and New Zealand are about where we were in the eighties. The long sunlight of northern regions, notably in Canada just now, is ripening wheat and oats as the shorter hours to their southward never can.

No, we cannot assume that the world price plus a little more will solve our agricultural problem. It will help to the extent that it helps. But at its best — or worst — that cannot be much nor life lasting. To spend $300,000,000 per year will mean $50 per family per year. Great credit is due those who champion such plans. They at least show that they can face facts as they see them and that they are ready to do something more than talk. Our agricultural situation cuts athwart our national life too deeply to waste time with the people who talk much and do little. And such subsidies will prove useful in tiding over essential production changes. But subsidies shorn of production or marketing guidance can be harmful.

The tariff as a cure-all

Another assumption is that the farmers' ills will all be cured by the tariff. The tariff costs the American farm family from $30 to $50 per year. Can the farmer ever get back what it costs him? "Yes," say the tariff advocates, "because he will have such a fine domestic market." But a city domestic market means a declining per capita consumption, as we have seen. "True, but a tariff will mean more people in the cities." How? "By immigration." But we are restricting immigration. "Then by giving a better wage in the cities for the sons and daughters of the farm." That is no doubt correct. Does that help the farmer? If so, how much is it worth? "But the continuance of a tariff policy will build

up a domestic market in excess of domestic production and hence will in time make possible a protection that protects the farmer." But has it? Does it? Will it?

The answer must lie in a careful analysis of the production and consumption of our main farm products. Such an analysis shows:

1. No hope for general cotton protection within any reasonable period.

2. No hope for wheat protection, save for minor grades, within any reasonable period, and that limited protection we now have.

3. No hope for hog protection within any reasonable period. Hog production in Europe is already up to pre-war standards, and promises to stay there on cheap Argentina corn alone.

4. No hope for corn protection so long as we export corn through pork and sell pork products at world prices, though we can and do keep out some direct shipments of Argentina corn.

5. No hope for the potato grower. For though we import few potatoes, our production is so ample for domestic consumption, and production so multiplies with "400-bushel" producers, that there is no hope in sight.

6. No reasonable protection is in sight for the tobacco grower. We export a substantial part of our production.

7. There is at present real protection to the dairy farmer, with production increasing so fast that the day cannot be far distant when our production will fully equal our consumption and we must squarely face whether we will limit production or meet export prices, or do something of both.

8. There is present protection for beef cattle, with a declining per capita consumption and increasing production costs.

Such is the situation under present facts, without regard to the shifts in output and consumption indicated above, due to scientific production, which is increasing production (and exports) as land values go down.

Those who can find in the tariff in the face of such facts any basis for a permanent solution of our agricultural problem are only finding what they are bent on looking for. The facts are all the other way.

On some farm products the tariff is now and will continue to be helpful. As such the farmers are entitled to all the help they can get — doubly

entitled to it because the votes of their representatives have gained true protection for others while the farmer was told that he too was reaping its benefits.

Much is to be said for our high price market kept so by tariff walls and restricted immigration. But the farmer buys in the main in this, the highest price market in the world, and sells in the lowest. Of all the good things to be said for the tariff, therefore — and they are many — farm relief is not one of them.

What a federal marketing board can do

What a Federal Marketing Board can do depends in the first place on the stamina and will to do of that board. A weak vacillating marketing board dominated by visions narrower than the task and by those lukewarm or adverse to the farmers' interests can do nothing. Worse, it can be positively harmful.

But granted the will for a real board with vision, power and money, it can do much of lasting benefit and of fundamental importance. Here are just a few of the things it can do.

First, it can stand on the shoulders of the constructive fact-finding and policy-making work of the Federal Department of Agriculture. That work in the main is well and capably done. It has been hamstrung at times in its history by the domination of those who wanted cheap farm products at any cost. It has suffered from vacillating policies. It has had growing pains. Young employees of vision and training have been replaced by officeholders, entirely too often for the good of our country. Its policies have been made subservient to the dominant policies of given administrations. Politicians have played with it, even to swapping patronage for appropriations. Such defects and limitations must be admitted by its best friends.

But yet it has grown in power, in vision and in usefulness. Despite these handicaps, it has grown — because of the growing need of the great interest it represents.

How can a marketing board improve on what the Department has done and is doing? By greater and truer vision; by a determination to win, just because it represents more completely than any one man ever can all the interests of agriculture; by having more money to spend than

it is well for any one man to spend; by justifying its existence through service; by assuring continuity of marketing policies in a way that changing cabinets can not.

To do this it must be truly representative of agriculture backed by a national opinion that this bed-rock industry must and should thrive — reasonably thrive at least. And how can we best move toward that end? By astute, persistent, practical marketing. By making the most out of every one of our national assets, be they agricultural, industrial, banking, or transportation.

Some essentials in a marketing policy

In the market lies the answer to farm prosperity, as to any prosperity. This board must help market. The market includes production, selling, and consumption. Our marketing can be vastly improved by strong policies in the hands of those with market sense.

Consumption can effectively be drafted into channels more in keeping with our national interests both at home and abroad.

And let us start abroad first. Our foreign policies should certainly be shaped only after their full effects on any agricultural situation are weighed. We should have policies looking toward our agricultural sales as well as our industrial sales, neither to the exclusion of the other. In guiding our growing foreign investments, our future agricultural markets should have their just share of consideration. And this will be of increasing effect.

International transportation systems should become an integral part of our agricultural policy. The St. Lawrence Waterway will do more than save our Plains farmers two or three cents a bushel on wheat. It will bring the Atlantic Ocean to the Mississippi Valley. Products will come in as well as go out. And that Great Valley will the sooner come into its own industrially. The Mississippi Barge Canal should make of every port on that river a port on the Gulf. Our merchant marine policies are of outstanding importance to a permanent agricultural policy. Such a board will ever keep its weather eye on cheap and ever cheaper transportation to and from our markets.

Such a board should take a look at our domestic railway rate structure. Here are literally a thousand questions vital to a national as distinct from

a sectional farm policy. Some rates give too little heed to long-haul costs, some too much. Congress has directed that consideration be given to this. And the Interstate Commerce Commission has proceeded with about as much vigilance as one could expect when no advocate is at hand.

Such a board should immediately set out for a survey of those marginal lands now nominally in agriculture that should revert to our national or state forest or grazing domain. Vast acreages should be abandoned in addition to the vast areas already abandoned. Sums of money should be available, first, for this survey, and, second, for the transportation of poverty-stricken farmers in these areas to other areas where employment suited to their capacities can reasonably await them. I do not suggest compensation. I suggest only that we be humane enough to help these bankrupts get a new start. Nor do I suggest this because it will lower production. One good farmer on one small farm can produce as much surplus as a thousand of these destitutes are producing. I suggest this, first, as a humane thing and, second, as an essential step toward water and soil conservation, and a permanent national policy toward our forest and land resources.

Such a board must work with and through forces that will adapt our output to our best markets with full reference to returns, to consumption demands, and to the long-time needs of a national agricultural policy. For instance, I venture to say that adequate surveys would reduce wheat and oats acreage in most of our states. We can profitably grow wheat in competition with the world market on large specialized wheat farms with machinery that will take two hours of man labor where twenty are taken on the average small farm today. We can afford to grow wheat as a nurse crop in certain sections. Such adjustments would put wheat on a profit basis in most places where it would still be grown even though we still have a substantial exportable surplus.

The boll weevil is moving our cotton acreage westward into drier and northward into cooler regions. In these newer regions epoch-making changes are being made through machinery for picking and handling cotton. This means a new revolution in agriculture in our Old South. It no doubt means also that we continue to be a major factor in the world's cotton market. The Old South is importing dairy cows. Think of the help such a Federal Market Board can give in this adaptation.

Established dairy sections can alone appreciate the changes necessary to get good dairy help in the South. It's one thing to buy a good Jersey cow; it's quite another thing to keep her and her offspring productive of net income over a period of years.

Making the most of our national advantages

In shaping such a marketing policy, the board should make the most of our national advantages. One of these is large-scale farming. We shall have both gardens and large estates. The proportion need not be set up now. Let us make the most of each. Let us have specialized farms where profitable.

We have the lead on the world in scientific farming. The megaphone such a board will have can alone keep us a lap ahead of any other country for some time to come at least. We must not stop our progress. We must make more of it.

We have large-scale buying and selling. All the advantages in that we should keep. Large-scale business is part of our national flair. Let us profit by it. This includes our great grain and cattle markets.

We have large-scale distributing facilities in milk, in milk products, in milling, and other companies. Let us make the most of their every advantage, and their advantages are numerous. How silly it would be to break these up when other countries are now securing them at such heavy financial and social cost.

We have our huge banking and investment houses. Let us tie them right into our agricultural marketing policies. Myriad are the ways this still can be done.

Let us have a new survey of all our special advantages as compared with other nations. And let us under capable and farsighted guidance make the most of every one of them in this marketing policy.

Coöperatives

The beginning of wise marketing is the product. The product must be suited to the demand, and the demand suited to the product. Consumption standards change, and under modern facilities for fact-dissemination will change ever more rapidly.

Producers must adapt their product to the market with every changing

consumption standard, even fancy or whim. This they must do on a regional scale, and on a national scale. Nay, the nation alone will not do any more. On an international scale, if we are to take our place in the world's sun. And that we must do, if for no other reason than that pointed out above: we have to, or limit production.

Now, how can standard of product on a large scale quickly adaptable to production on the one hand and consumption on the other be secured? Every way has been tried once. High prices have been tried spasmodically with havoc. National subsidies have been tried with havoc. One way only has gotten farm results, and that way lies through agricultural coöperatives.

The coöperative must have power to enforce its standards; that, a national law and a national farm board can give it. The coöperative must be organized on a scale as big as its business. That can be assured most completely and economically through national legislation and through the guidance of a national marketing board. Money here will help if spent with an eye to returns, and to make coöperatives self-supporting and self-directing.

A national law should make possible financial aid to self-supporting coöperatives with their own fees during their early years of establishment. More than this will be detrimental to farmers themselves. In this period of adjustment, export subsidies may be tried out on a limited basis, but only until a marketing plan is full grown. Nothing will destroy coöperative marketing so soon as overstimulated production. . . .

XXIV. THE AGRICULTURAL MARKETING ACT[1]

ENACTED BY THE CONGRESS OF THE UNITED STATES

AN ACT To establish a Federal Farm Board to promote the effective merchandising of agricultural commodities in interstate and foreign commerce, and to place agriculture on a basis of economic equality with other industries.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Declaration of policy

SECTION 1. (*a*) That it is hereby declared to be the policy of Congress to promote the effective merchandising of agricultural commodities in interstate and foreign commerce, so that the industry of agriculture will be placed on a basis of economic equality with other industries, and to that end to protect, control, and stabilize the currents of interstate and foreign commerce in the marketing of agricultural commodities and their food products —

(1) by minimizing speculation.

(2) by preventing inefficient and wasteful methods of distribution.

(3) by encouraging the organization of producers into effective associations or corporations under their own control for greater unity of effort in marketing and by promoting the establishment and financing of a farm marketing system of producer-owned and producer-controlled coöperative associations and other agencies.

(4) by aiding in preventing and controlling surpluses in any agricultural commodity, through orderly production and distribution, so as to maintain advantageous domestic markets and prevent such surpluses from causing undue and excessive fluctuations or depressions in prices for the commodity.

(*b*) There shall be considered as a surplus for the purposes of this Act

[1] Public, no. 10, 71st Congress, 1929.

any seasonal or year's total surplus, produced in the United States and either local or national in extent, that is in excess of the requirements for the orderly distribution of the agricultural commodity or is in excess of the domestic requirements for such commodity.

(*c*) The Federal Farm Board shall execute the powers vested in it by this Act only in such manner as will, in the judgment of the board, aid to the fullest practicable extent in carrying out the policy above declared.

Federal Farm Board

SEC. 2. A Federal Farm Board is hereby created, which shall consist of eight members to be appointed by the President, by and with the advice and consent of the Senate, and of the Secretary of Agriculture, ex officio. In making the appointments the President shall give due consideration to having the major agricultural commodities produced in the United States fairly represented upon the board. The terms of office of the appointed members of the board first taking office after the date of the approval of this Act shall expire, as designated by the President at the time of nomination, two at the end of the first year, two at the end of the second year, one at the end of the third year, one at the end of the fourth year, one at the end of the fifth year, and one at the end of the sixth year after such date. A successor to an appointed member of the board shall have a term of office expiring six years from the date of the expiration of the term for which his predecessor was appointed, except that any person appointed to fill a vacancy in the board occurring prior to the expiration of the term for which his predecessor was appointed, shall be appointed for the remainder of such term. One of the appointed members shall be designated by the President as chairman of the board and shall be the principal executive officer thereof. The board shall select a vice chairman who shall act as chairman in case of the absence or disability of the chairman. The board may function notwithstanding vacancies, and a majority of the appointed members in office shall constitute a quorum. Each appointed member shall be a citizen of the United States and shall not actively engage in any other business, vocation, or employment than that of serving as a member of the board; nor shall any appointed member during his term of office engage in the

business (except such business as is necessary to the operation of his own farm or farms) of buying and selling, or otherwise be financially interested in, any agricultural commodity or product thereof. Each appointed member shall receive a salary of $12,000 a year, together with necessary traveling and subsistence expenses, or per diem allowance in lieu thereof, within the limitations prescribed by law, while away from his official station upon official business.

Advisory commodity committees

SEC. 3. (*a*) The board is authorized to designate, from time to time, as an agricultural commodity for the purposes of this Act (1) any regional or market classification or type of any agricultural commodity which is so different in use or marketing methods from other such classifications or types of the commodity as to require, in the judgment of the board, treatment as a separate commodity under this Act; or (2) any two or more agricultural commodities which are so closely related in use or marketing methods as to require, in the judgment of the board, joint treatment as a single commodity under this Act.

(*b*) The board shall invite the coöperative associations handling any agricultural commodity to establish an advisory commodity committee to consist of seven members, of whom at least two shall be experienced handlers or processors of the commodity, to represent such commodity before the board in matters relating to the commodity. Members of each advisory committee shall be selected by the coöperative associations from time to time in such manner as the board shall prescribe. No salary shall be paid to committee members, but the board shall pay each a per diem compensation not exceeding $20 for attending committee meetings called by the board and for time devoted to other business of the committee authorized by the board, and necessary traveling and subsistence expenses, or per diem allowance in lieu thereof, within the limitations prescribed by law for civilian employees in the Executive branch of the Government. Each advisory committee shall be designated by the name of the commodity it represents, as, for example, the "Cotton Advisory Committee."

(*c*) Each advisory committee shall meet as soon as practicable after its selection, at a time and place designated by the board. Each ad-

visory committee shall meet thereafter at least twice a year upon call of the board, and may meet at other times upon call of a majority of the members thereof. Each advisory committee shall select a chairman and secretary.

(*d*) Each advisory committee may by itself or through its officers, (1) confer directly with the board, call for information from it, or make oral or written representations to it, concerning matters within the jurisdiction of the board and relating to the agricultural commodity, and (2) coöperate with the board in advising the producers through their organizations or otherwise in the development of suitable programs of planting or breeding in order to secure the maximum benefits under this Act consistent with the policy declared in section 1.

General powers of board

SEC. 4. The board —

(1) shall maintain its principal office in the District of Columbia, and such other offices in the United States as in its judgment are necessary.

(2) shall have an official seal which shall be judicially noticed.

(3) shall make an annual report to Congress upon the administration of this Act and any other matter relating to the better effectuation of the policy declared in section 1, including recommendations for legislation.

(4) may make such regulations as are necessary to execute the functions vested in it by this Act.

(5) may appoint and fix the salaries of a secretary and such experts, and, in accordance with the Classification Act of 1923, as amended, and subject to the provisions of the civil service laws, such other officers and employees, as are necessary to execute such functions.

(6) may make such expenditures (including expenditures for rent and personal services at the seat of government and elsewhere, for law books, periodicals, and books of reference, and for printing and binding) as are necessary to execute such functions. Expenditures by the board shall be allowed and paid upon the presentation of itemized vouchers therefor approved by the chairman of the board.

(7) shall meet at the call of the chairman, the Secretary of Agriculture, or a majority of its members.

Special powers of board

SEC. 5. The board is authorized and directed —

(1) to promote education in the principles and practices of coöperative marketing of agricultural commodities and food products thereof.

(2) to encourage the organization, improvement in methods, and development of effective coöperative associations.

(3) to keep advised from any available sources and make reports as to crop prices, experiences, prospects, supply, and demand, at home and abroad.

(4) to investigate conditions of overproduction of agricultural commodities and advise as to the prevention of such overproduction.

(5) to make investigations and reports and publish the same, including investigations and reports upon the following: Land utilization for agricultural purposes; reduction of the acreage of unprofitable marginal lands in cultivation; methods of expanding markets at home and abroad for agricultural commodities and food products thereof; methods of developing by-products of and new uses for agricultural commodities; and transportation conditions and their effect upon the marketing of agricultural commodities.

Revolving fund

SEC. 6. There is hereby authorized to be appropriated the sum of $500,000,000 which shall be made available by the Congress as soon as practicable after the approval of this Act and shall constitute a revolving fund to be administered by the board as provided in this Act.

Loans to coöperative associations

SEC. 7. (*a*) Upon application by an coöperative association the board is authorized to make loans to it from the revolving fund to assist in —

(1) the effective merchandising of agricultural commodities and food products thereof;

(2) the construction or acquisition by purchase or lease of physical marketing facilities for preparing, handling, storing, processing, or merchandising agricultural commodities or their food products;

(3) the formation of clearing house associations;

(4) extending membership of the coöperative association applying for

the loan by educating the producers of the commodity handled by the association in the advantages of coöperative marketing of that commodity; and

(5) enabling the coöperative association applying for the loan to advance to its members a greater share of the market price of the commodity delivered to the association than is practicable under other credit facilities.

(*b*) No loan shall be made to any coöperative association unless, in the judgment of the board, the loan is in furtherance of the policy declared in section 1 and the coöperative association applying for the loan has an organization and management, and business policies, of such character as to insure the reasonable safety of the loan and the furtherance of such policy.

(*c*) Loans for the construction or acquisition by purchase or lease of physical facilities shall be subject to the following limitations:

(1) No such loan for the construction or purchase of such facilities shall be made in an amount in excess of 80 per centum of the value of the facilities to be constructed or purchased.

(2) No loan for the purchase or lease of such facilities shall be made unless the board finds that the purchase price or rent to be paid is reasonable.

(3) No loan for the construction, purchase, or lease of such facilities shall be made unless the board finds that there are not available suitable existing facilities that will furnish their services to the coöperative association at reasonable rates; and in addition to the preceding limitation, no loan for the construction of facilities shall be made unless the board finds that suitable existing facilities are not available for purchase or lease at a reasonable price or rent.

(*d*) Loans for the construction or purchase of physical facilities, together with interest on the loans, shall be repaid upon an amortization plan over a period not in excess of twenty years.

Miscellaneous loan provisions

SEC. 8. (*a*) Loans to any coöperative association or stabilization corporation and advances for insurance purposes shall bear interest at a rate of interest per annum equal to the lowest rate of yield (to the nearest

one-eighth of 1 per centum) of any Government obligation bearing a date of issue subsequent to April 6, 1917 (except postal-savings bonds), and outstanding at the time the loan agreement is entered into or the advance is made by the board, as certified by the Secretary of the Treasury to the board upon its request: *Provided*, That in no case shall the rate exceed 4 per centum per annum on the unpaid principal.

(*b*) Payments of principal or interest upon any such loan or advance shall be covered into the revolving fund.

(*c*) Loans to any coöperative association or stabilization corporation shall be made upon the terms specified in this Act and upon such other terms not inconsistent therewith and upon such security as the board deems necessary.

(*d*) No loan or insurance agreement shall be made by the board if in its judgment the agreement is likely to increase unduly the production of any agricultural commodity of which there is commonly produced a surplus in excess of the annual marketing requirements.

Stabilization corporations

SEC. 9. (*a*) the board may, upon application of the advisory commodity committee for any commodity, recognize as a stabilization corporation for the commodity any corporation if —

(1) the board finds that the marketing situation with respect to the agricultural commodity requires or may require the establishment of a stabilization corporation in order effectively to carry out the policy declared in section 1; and

(2) the board finds that the corporation is duly organized under the laws of a State or Territory; and

(3) the board finds that all the outstanding voting stock or membership interests in the corporation are and may be owned only by coöperative associations handling the commodity; and

(4) the corporation agrees with the board to adopt such by-laws as the board may from time to time require, which by-laws, among other matters, shall permit coöperative associations not stockholders or members of the corporation to become stockholders or members therein upon equitable terms.

(*b*) Any stabilization corporation for an agricultural commodity

(1) may act as a marketing agency for its stockholders or members in preparing, handling, storing, processing, and merchandising for their account any quantity of the agricultural commodity or its food products, and (2) for the purpose of controlling any surplus in the commodity in furtherance of the policy declared in section 1, may prepare, purchase, handle, store, process, and merchandise, otherwise than for the account of its stockholders or members, any quantity of the agricultural commodity or its food products whether or not such commodity or products are acquired from its stockholders or members.

(*c*) Upon request of the advisory committee for any commodity the board is authorized to make loans from the revolving fund to the stabilization corporation for the commodity for working capital to enable the corporation to act as a marketing agency for its stockholders or members as hereinbefore provided. Not less than 75 per centum of all profits derived by a stabilization corporation each year from its operations as such a marketing agency shall be paid into a merchandising reserve fund to be established by the corporation. No such payment shall be required whenever the fund is in such amount as, in the judgment of the board, constitutes a sufficient reserve for such operations of the corporation. Out of the remainder of such profits for the year the corporation shall repay any outstanding loan made under this subdivision and the accrued interest thereon, or if all such loans and accrued interest have been fully repaid, then it may distribute a patronage dividend to its stockholders or members. Such patronage dividend shall be paid to each stockholder or member on the basis of the total volume of the commodity or its products for the year marketed for his account through the corporation.

(*d*) Upon request of the advisory committee for any commodity the board is authorized to make loans from the revolving fund to the stabilization corporation for the commodity to enable the corporation to control any surplus in the commodity as hereinbefore provided and for meeting carrying and handling charges and other operating expenses in connection therewith. The board shall require a stabilization corporation to establish and maintain adequate reserves from its profits from its surplus control operations before it shall pay any dividends out of such profits. All losses of the corporation from such operations shall be paid from such reserves, or if such reserves are inadequate, then such losses shall be paid by the

board as a loan from the revolving fund. Any amounts so loaned for payment of losses shall be repaid into the revolving fund by the corporation from future profits from its surplus control operations. Any stabilization corporation receiving loans under this subdivision for surplus control operations shall exert every reasonable effort to avoid losses and to secure profits, but shall not withhold any commodity from the domestic market if the prices have become unduly enhanced, resulting in distress to domestic consumers. Stockholders or members of the corporation shall not be subject to assessment for any losses incurred in surplus control operations of the corporation.

(*e*) A stabilization corporation shall keep such accounts, records, and memoranda, and make such reports with respect to its transactions, business methods, and financial condition, as the board may from time to time prescribe; shall permit the board to audit its accounts annually and at such other times as the board deems advisable; and shall permit the board, upon its own initiative or upon written request of any stockholder or member, to investigate the financial condition and business methods of the corporation.

(*f*) No loan shall be made to any stabilization corporation unless, in the judgment of the board, the loan is in furtherance of the policy declared in section 1.

Clearing house associations

SEC. 10. Upon application of any coöperative association handling an agricultural commodity or of producers of an agricultural commodity, the board is authorized, if it deems such association or producers representative of the commodity, to assist in forming producer-controlled clearing house associations adapted to effecting the economic distribution of the agricultural commodity among the various markets and to minimizing waste and loss in the marketing of the commodity, if such assistance, in the judgment of the board, will be in furtherance of the policy declared in section 1. The board may provide for the registration, and for the termination of the registration, of any clearing house association in accordance with such regulations as the board may prescribe. Such clearing house associations are authorized to operate under rules adopted by the member coöperative associations and approved by the board. Independ-

ent dealers in, and handlers, distributors, and processors of, the commodity, as well as coöperative associations handling the commodity, shall be eligible for membership in the clearing house association: *Provided*, That the policy of such clearing house association shall be approved by a committee of producers which, in the opinion of the board, is representative of the commodity. Clearing house associations shall utilize the market news service and other facilities of the Department of Agriculture as far as possible.

Price insurance

SEC. 11. The board is authorized, upon application of coöperative associations, to enter into agreements, subject to the conditions hereinafter specified, for the insurance of the coöperative associations against loss through price decline in the agricultural commodity handled by the associations and produced by the members thereof. Such agreements shall be entered into only if, in the judgment of the board, (1) coverage is not available from private agencies at reasonable rates, (2) the insurance will be in furtherance of the policy declared in section 1, (3) the agricultural commodity is regularly bought and sold in the markets in sufficient volume to establish a recognized basic price for the market grades of the commodity, and (4) there is available with respect to the commodity such market information as will afford an accurate record of prevailing prices for the commodity covering a period of years of sufficient length to serve as a basis to calculate the risk and fix the premium for the insurance. The agreements shall require payment of premiums so fixed and shall include such other terms as, in the judgment of the board, are necessary. The board may make advances from the revolving fund to meet obligations under any insurance agreement, but such advances together with the interest thereon shall, as soon as practicable, be repaid from the proceeds of insurance premiums.

Administrative appropriation

SEC. 12. For expenditures in executing the functions vested in the board by this Act (including salaries and expenses of members, officers, and employees of the board and per diem compensation and expenses of the commodity committees), incurred prior to July 1, 1930, there is hereby authorized to be appropriated the sum of $1,500,000. No part of the

moneys appropriated in pursuance of this authorization shall be available for expenditures, including loans and advances, for the payment of which the revolving fund or insurance moneys are authorized to be used.

Avoidance of duplication

SEC. 13. (*a*) The board shall, in coöperation with any governmental establishment in the Executive branch of the Government, including any field service thereof at home or abroad, avail itself of the services and facilities thereof in order to avoid preventable expense or duplication of effort.

(*b*) The President may by Executive order direct any such governmental establishment to furnish the board such information and data as such governmental establishment may have pertaining to the functions of the board; except that the President shall not direct that the board be furnished with any information or data supplied by any person in confidence to any governmental establishment in pursuance of any provision of law or of any agreement with a governmental establishment.

(*c*) The board may coöperate with any State or Territory, or department, agency, or political subdivision thereof, or with any person.

(*d*) The board shall, through the Secretary of Agriculture, indicate to the appropriate bureau or division of the Department of Agriculture any special problem on which a research is needed to aid in carrying out the provisions of this Act.

(*e*) The President is authorized, by Executive order, to transfer to or retransfer from the jurisdiction and control of the board the whole or any part of (1) any office, bureau, service, division, commission, or board in the Executive branch of the Government engaged in scientific or extension work, or the furnishing of services, with respect to the marketing of agricultural commodities, (2) its functions pertaining to such work or services, and (3) the records, property, including office equipment, personnel, and unexpended balances of appropriation, pertaining to such work or services.

Examination of books and accounts of board

SEC. 14. Vouchers approved by the chairman of the board for expenditures from the revolving fund pursuant to any loan or advance or from

insurance moneys pursuant to any insurance agreement, shall be final and conclusive upon all officers of the Government; except that all financial transactions of the board shall, subject to the above limitations, be examined by the General Accounting Office at such times and in such manner as the Comptroller General of the United States may by regulation prescribe. Such examination, with respect to expenditures from the revolving fund pursuant to any loan or advance or from insurance moneys pursuant to any insurance agreement, shall be for the sole purpose of making a report to the Congress and to the board of expenditures and of loan and insurance agreements in violation of law, together with such recommendations thereon as the Comptroller General deems advisable.

Miscellaneous provisions

SEC. 15. (*a*) As used in this Act, the term "coöperative association" means any association qualified under the Act entitled "An Act to authorize association of producers of agricultural products," approved February 18, 1922. Whenever in the judgment of the board the producers of any agricultural commodity are not organized into coöperative associations so extensively as to render such coöperative associations representative of the commodity, then the privileges, assistance, and authority available under this Act to coöperative associations, shall also be available to other associations and corporations producer-owned and producer-controlled and organized for and actually engaged in the marketing of the agricultural commodity. No such association or corporation shall be held to be producer-owned and producer-controlled unless owned and controlled by coöperative associations as above defined and/or by individuals engaged as original producers of the agricultural commodity.

(*b*) It shall be unlawful for any member, officer, or employee of the board to speculate, directly or indirectly, in any agricultural commodity or product thereof, or in contracts relating thereto, or in the stock or membership interests of any association or corporation engaged in handling, processing, or disposing of any such commodity or product. Any person violating this subdivision shall upon conviction thereof be fined not more than $10,000, or imprisoned not more than ten years, or both.

(*c*) It shall be unlawful (1) for any coöperative association, stabilization corporation, clearing house association, or commodity committee, or (2)

for any director, officer, employee, or member or person acting on behalf of any such association, corporation, or committee, to which or to whom information has been imparted in confidence by the board, to disclose such information in violation of any regulation of the board. Any such association, corporation, or committee, or director, officer, employee, or member thereof, violating this subdivision, shall be fined not more than $5,000, or imprisoned not more than five years, or both.

(*d*) That the inclusion in any governmental report, bulletin, or other such publication hereafter issued or published of any prediction with respect to cotton prices is hereby prohibited. Any officer or employee of the United States who authorizes or is responsible for the inclusion in any such report, bulletin, or other publication of any such prediction, or who knowingly causes the issuance or publication of any such report, bulletin, or other publication containing any such prediction, shall, upon conviction thereof, be fined not less than $500 or more than $5,000, or imprisoned for not more than five years, or both: *Provided*, That this subdivision shall not apply to the members of the board when engaged in the performance of their duties herein provided.

(*e*) If any provision of this Act is declared unconstitutional, or the applicability thereof to any person, circumstance, commodity, or class of transactions with respect to any commodity is held invalid, the validity of the remainder of the Act and the applicability of such provision to other persons, circumstances, commodities, and classes of transactions shall not be affected thereby.

(*f*) This Act may be cited as the "Agricultural Marketing Act."

Approved, June 15, 1929.

XXV. THE DEVELOPMENT OF RAILROAD REGULATION IN AMERICA [1]

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American railroad transportation may be said to date from 1830. At that time there were but 23 miles of line in this country. Turnpikes and canals were superseded by the railroad as the primary channel of trade and commerce only when the practicability of applying steam to transportation, through the successful use of the locomotive, was definitely established. The substitution of mechanical for muscular power in the carriage of persons and the movement of goods then became a reality. This transformation had its beginning in the United States with the building of the Baltimore and Ohio Railroad. "On the fourth of July, 1821," writes President Hadley, "Charles Carroll, last surviving signer of the Declaration of Independence, laid the first rail of the Baltimore and Ohio Railroad. One man's life formed the connecting link between the political revolution of the last century and the industrial revolution of the present." . . .

The period of railroad freedom

The first period, from 1830 to 1870, was primarily one of railroad building. During the initial two decades the railroad was still in the stage of experimentation and its service was largely utilized to supplement water transportation. By 1850 there were only about 9,000 miles of line in the United States. This railway plant was localized in the seaboard states, especially in New England. Most of the important lines radiated from the Atlantic seaports. The economic development of the south and the central west, together with the general prosperity which accompanied the discovery of gold in California, led to the extension of railroad building into the interior. By 1860 American railway mileage exceeded 30,000,

[1] Adapted, by permission of The Century Co., from *The American railroad problem*, by I. L. Sharfman, The Century Co., 1921, pages 31–63.

and by 1870 a great railway network of almost 53,000 miles had been constructed. This achievement was the more noteworthy because it was accomplished in spite of the depressing influence upon railway construction exercised by the panic of 1857 and by the Civil War. The new lines were situated mainly in the middle northwest, east of the Mississippi and north of the Ohio, though there was some railway building in the south, and considerable additional mileage was constructed in the eastern states. The fifties saw the beginnings of through routes and of the consolidation of connecting lines. The foundations of the present New York Central and Pennsylvania railroad systems were laid in this period. By 1853 an all-rail line from the Atlantic seaboard to Chicago had been established. The Civil War stimulated the development of transcontinental routes, and by 1869 the first transcontinental line had been completed.

During this period the railroads were almost entirely free from governmental interference. Indeed, the community manifested so marked an eagerness to secure railroad transportation that the state's attitude toward the carriers was one of liberality and encouragement. The fundamental character of the new industry, and the intimate public concern in its swift growth throughout the country, served as a basis for generous aid rather than as a reason for restrictive legislation. From the early thirties till the early seventies railroad construction received extensive public assistance. This aid was granted by the state and local governments (often, also, by private individuals), as well as by the Federal government. The desire to secure access to new markets, and thereby to develop the commercial and industrial importance of particular cities and sections of the country, provided the primary stimulus for state and local aid. The states often granted such subsidies as part of the policy of government aid to works of internal improvement. National aid in railroad construction was designed to promote the settlement of the country and to provide better facilities for the handling of the mails and the movement of troops. State and local aid took many forms. Railroad stocks and bonds were frequently purchased with public funds; but the hope or expectation that the investments would prove profitable was seldom realized. In some instances interest and dividends on railroad bonds and stocks were publicly guaranteed. There were also direct grants of public funds, either in cash or in state securities. While these grants were generally intended

as mere loans, the advances often turned out to be naked gifts. The states also donated to the railroads large tracts of public lands which they had received from the national government. Railroad enterprise was promoted by the Federal government itself through grants of public lands and loans of public funds. The indirect land grants, through the states, were first made as early as 1850. The first direct Federal land grant was made in 1862, to assist in the construction of a line connecting the Missouri River and the Pacific. In the following decade, Congress enacted numerous statutes parceling out large portions of the public domain for railway purposes. Of these Federal land grants, as well as of the loans of funds in the form of United States bonds, the transcontinental roads were the chief beneficiaries. It is practically impossible to state with exactness the extent of public aid to railroad construction in the United States, but the most careful and reliable estimates indicate that the subventions of this period reached an unsuspected magnitude. The direct land grants of the Federal government alone, between 1862 and 1871, reached a total of about 26,000,000 acres, or some 40,000 square miles. The aggregate amount of all the land grants, between 1850 and 1871, has been estimated at 155,000,000 acres, or some 242,000 square miles.[1] In addition, the total of loans and gifts of public funds made by the Federal, state and local governments has been estimated at approximately $700,000,000.

This public aid, while too lavish in some instances, was doubtless necessary to stimulate the early railroad builders and to make available the great advantages of rapid construction and "the wide permeation

[1] "It thus appears that a gift of territory greater by about one-fifth than the entire area either of the German Empire or France, almost equal in size to the state of Texas or four times the New England states, has, at one time or another, been made in aid of railroad construction. The Federal grants equal about two-thirds of the area of the New England states, or, in other words, are about five times the size of the state of Massachusetts. A large proportion of the area of the new commonwealths was offered as a bonus to railroads. Seven western states — including, for example, Minnesota, Iowa, and Wisconsin — gave away from a fifth to a quarter of their birthrights. Nebraska donated one-seventh, and California one-eighth. The Lone Star state discovered in 1882 that in her youthful ardor she had given away some 8,000,000 acres more than she possessed. Shall it ever be said, in the face of such evidence, that these common carriers are private concerns, to be administered solely in the interest of holders of their securities?" — W. Z. Ripley, *Railroads: rates and regulation*, pages 36–37.

of the land with railway facilities." But it helped, also, to accentuate the speculative character of American railroad development. In four decades a railway net of some 53,000 miles was constructed. Moreover, through the land grants and loans of this period, foundations were laid for much of the subsequent railroad construction. Transportation systems were thus created far in advance of the needs of the country. Railroad-building preceded, rather than followed, the movement of population and the growth of traffic. As a result, not only did destructive rate wars naturally ensue, but an equally harmful speculative temper was developed in the construction and financing of railway undertakings. Promoters of railroad enterprises frequently sought public aid because it could serve as a basis of profitable speculation. The provision of transportation service was regarded as an incidental. Financial adventurers were attracted to railroad building, railroad capital (generally raised through the sale of bonds and not through stock subscriptions) was extravagantly and often fraudulently spent, and a spirit of irresponsibility in the use of both public and private funds was encouraged.

But public aid was only a contributory or accentuating cause of the speculative abuses of the period. The complete absence of government regulation, in an industry essentially public in character, allowed the prosecution of private self-interest to run wild. The frequent utilization of the "construction company device," whereby unscrupulous insiders derived large personal gains at the expense of the railroad corporations on whose behalf they were presumably acting in a fiduciary capacity, was a practice essentially independent of the policy of government aid. In like manner, the financial manipulations subsequent to the construction period (involving, in some instances, actual fraud and corruption), of which the spectacular operations of Daniel Drew, Jim Fiske, and Jay Gould in the early vicissitudes of the Erie Railroad are classic examples, were symptomatic of a more deep-rooted malady. The individualistic temper of the times, the looseness of business standards, the ease with which railroad charters were secured and the willingness with which public privileges were distributed, the lack of publicity, the relative immaturity of the industry, and the mistaken policy of reliance upon railroad competition for the safeguarding of public interests, all helped to prepare "the harvest . . . for the daring and able operator."

The beginnings of public control

In the second period, between 1870 and 1887, the physical growth of the railway net proceeded at a more rapid rate than in the early decades. Between 1870 and 1880 more than 40,000 miles of line were added. Much of this new mileage was constructed in anticipation of future needs, and the speculative practices of the earlier years were further developed. The increase was about two and a half times as great as the growth of population. The intense activity in railroad building of the late sixties continued till 1873, and contributed directly to the severe financial panic of that year. In the year 1872, immediately preceding the depression, almost 7,400 miles of line were constructed. Then followed a lull in railroad construction which lasted till the return of more prosperous conditions in 1878. The resumption of activity in that year was the beginning of an unprecedented period of railroad building. Between 1880 and 1890 more than 70,000 miles of line were built — an unparalleled achievement in this country or elsewhere. As compared with an average annual construction of something over 2,000 miles prior to 1880, the new mileage exceeded 6,700 miles in 1881, 9,800 miles in 1882, 11,500 miles in 1883, and reached the extraordinary figure of almost 13,000 miles in 1887. During the seventies the new mileage was constructed largely in the states of the upper Mississippi Valley; during the succeeding years it contributed in large measure to the development of the southwest and the far western states. Besides the extension of plant, this period was marked by a rapid growth of the export trade, a decided decline in transportation charges which made this growth possible, an outbreak of railroad rate wars which led to these reductions in rates, a general prevalence of discriminatory practices, a widespread resort to pooling arrangements as a means of checking the evils of fierce unregulated competition, and an intense speculative activity in competitive railroad building "under the guise of affording satisfaction to the popular outcry for competition as a means of reducing rates."

The distinctive characteristics of this period are found primarily in the beginnings of railroad regulation. The policy of public aid was largely relinquished, and a vigorous antagonism against the railroads was swiftly developed. The public mind came to realize that the presence of extensive railroad systems does not necessarily constitute an unalloyed

blessing. It was recognized that extraordinary powers were vested in those in control of railroad transportation, and that these powers could be exercised, as in many cases they were exercised, as mere sources of private gain, and in distinct contravention of the public good. This public hostility was nourished by industrial fluctuation resulting from destructive rate wars, by the unjust distribution of preferential railroad advantages, in rates and service, to favored shippers and strategic localities, by scandalous financial manipulation in the construction and management of many of the railroad properties. Numerous attacks were launched against the roads because of excessive railway charges, and unmeasured fulminations, though essentially just, were directed against private monopoly control in an industry as fundamental as railroad transportation. The railroad owners, largely eastern and European capitalists, ceased to be regarded as public benefactors, and became the targets of violent denunciation. The public approval of liberal aid which had marked the earlier period was transformed into an insistent demand for public regulation.

The impulse toward railroad control came from the middle west. The railway abuses of the late sixties and the early seventies were felt most keenly in that section of the country, and the agitation for public regulation was largely supported by concerted efforts in the states of Illinois, Wisconsin, Minnesota, Iowa, and Missouri. The farmers in these states regarded the prevailing high tariffs at non-competitive points as unduly oppressive, the burden being the heavier because of the decline in prices of agricultural commodities; and they demanded the establishment of lower rates for the transportation of their products to the seaboard. The comparative sparsity of the population, the relatively great length of the hauls, and the intense rivalry for traffic which resulted from the oversupply of railroad facilities, had led the carriers to an untrammeled reliance upon the principle of charging what the traffic would bear; and the practice of local discrimination, and the general disregard of the element of distance in rate adjustments, were the natural outcome. The agitation for relief was espoused by the farmers' granges of these midwestern states, as a result of which the demand for railroad regulation came to be known as the Granger Movement, and the statutory enactments to which it gave rise, between 1871 and 1875, as the Granger

Legislation. This legislation dealt almost exclusively with the problem of rates. Unreasonable rates and unjust discriminatory practices were prohibited by statute; schedules of maximum rates to be observed by the railroads were prescribed by legislative enactment; and state commissions were organized for the enforcement of the statutory provisions. These commissions, being clothed with powers of rate control, exercised authority much broader in scope than that possessed by the commissions that had been established in a number of the eastern states for some decades. The powers of the earlier commissions had been generally limited to inspection of physical plant, collection of railway statistics, and investigation of alleged violations of charter authority or legislative provisions. While the Granger Legislation differed in detail in the various states, and while much reliance was placed upon direct statutory prescription, so that the jurisdiction and powers of these older commissions were not nearly as extensive as those of the modern railroad commissions of the mandatory type, the general tendency was to center authority in the newly created administrative agencies.

The complete reversal of governmental policy which was ushered in by the substitution of government control of railway enterprise for public assistance in railway development, was attacked by the railroads on many grounds. By an appeal to constitutional limitations, the legal right of the state to regulate railroad rates was denied; violations of contractual provisions of the corporate charters, through such attempted regulation, was charged; the statutory enactments and administrative orders as to rates were declared to be subject to judicial review because of their confiscatory character. But in a notable series of decisions, now known as the granger cases, the Supreme Court of the United States upheld the legal validity of the new legislation at every point. The right of the state to regulate railway rates was declared to be based upon the public character of the railway business — railroad enterprise constituting an undertaking "affected with a public interest"; the violation of charter authority was denied on the ground that grants of immunity cannot be claimed unless definitely and specifically conferred, and that the power to fix rates and charges vested in the railroads did not necessarily involve a renunciation by the state of its superior right of regulation; the right of judicial review (though later recognized) was likewise

categorically denied, on the ground that the determination of the reasonableness of rates, once the right to regulate exists, is a legislative and not a judicial function.[1]

These beginnings in railroad regulation, in spite of the relaxation which accompanied the period of depression between 1873 and 1878 in some of the states, were the foundation of the extensive system of public control which subsequently became nation-wide and enlisted the authority of the Federal government as well as that of practically all the states. In 1879 the Hepburn Committee of the New York legislature published the report of its investigation of railroad conditions, and its findings served as a basis for increased activity among the eastern states. The report of the Windom Committee of the United States Senate, submitted in 1874, was the first important step looking to the establishment of Federal regulation. While this Federal investigation was stimulated primarily by the outcry against excessive railway rates which had been largely instrumental in arousing the granger agitation, and while the conclusions of the Windom Committee assumed that the permanent elimination of railway abuses necessitated the encouragement of competition, through the development of waterways and the construction of parallel lines between the middle west and the eastern seaboard — assumptions and recommendations later recognized as out of harmony with the economic character of the railroad industry — this preliminary inquiry proved both useful and necessary for the initiation of Federal regulation. The investigation and report of the Cullom Committee followed, in 1886, resulting in the passage of the Act to Regulate Commerce and the establishment of the Interstate Commerce Commission.

The emergence of federal regulation

The importance of the period since 1887 is to be found chiefly in the development of the principles and machinery of Federal regulation which constituted the background of the railroad problem at the outbreak of the Great War. The facts as to material development may be stated briefly. The physical plant continued to grow, but at a much slower rate than in the preceding decades. During the nineties somewhat less than 40,000

[1] Munn *v.* Illinois, 94 U.S. 113, 1876; Peik *v.* Chicago & North Western Ry. Co., 94 U.S. 164; Ruggles *v.* Illinois, 108 U.S. 526, 1883.

miles were added to the railway net. In the years of depression following the panic of 1893 the average annual amount of new construction was less than 2,000 miles as compared with about 5,000 miles at the beginning of the decade. With the resumption of prosperity, the new mileage averaged between 4,000 and 5,000 miles annually from 1900 to 1914. This increase in mileage, as we have noted in the preceding chapter, fell far short of the growth in traffic. Between 1895 and 1905, for example, ton mileage increased 118 per cent and passenger mileage increased 95 per cent; during the same period, however, the increase in railway mileage was only 21 per cent. Between 1906 and 1916 the increase was 60 per cent in ton mileage and 35 per cent in passenger mileage, but the addition to the number of miles of line was only 16 per cent. In part, this retardation in physical growth of railway plant was due to impaired railroad credit and to the increase of profitable opportunities for industrial investment; in some measure, however, it may be accounted for by the relative adequacy of the main transportation lines. The paramount need during more recent years has been for intensive development of the railway service. And this development has in fact proceeded at a more rapid rate than the growth of railway mileage. From 1890 to 1907, for example, while single track railway mileage increased but 40 per cent, the increase was 130 per cent in second track, 157 per cent in third track, 147 per cent in fourth track, and 130 per cent in the mileage of yard tracks and sidings. Growth of trackage constitutes but one element in the intensive development of the service, but it is a very important one.

From the standpoint of regulation, the years between 1887 and 1906, the third period in American railway development, marked the first efforts of the Federal government to mold the activities of the carriers in the direction of public interest. Sole reliance upon state regulation was recognized as inadequate. The rapid extension of transportation facilities throughout the country and the swift increase of interstate traffic disclosed the necessity of centralized railroad control on a national basis. The old charges of extortion, because of high freight rates, had largely disappeared by the late eighties; but railroad discrimination had become an evil of menacing proportions. The widely prevalent resort to personal discrimination, as revealed especially in the spectacular practices of which the Standard Oil Company was the chief beneficiary, focused public

attention upon the abuses of unregulated railroad operation with dramatic effect. The Cullom Committee of the United States Senate, in its report of 1886, declared that "the paramount evil chargeable against the operation of the transportation systems of the United States, as now conducted, is unjust discrimination between persons, places, commodities, or particular descriptions of traffic."[1] And the growing conviction that the states were incapable of meeting the situation was accentuated by the decision of the Supreme Court in the Wabash Case,[2] which enunciated the principle, for which binding precedent was cited, that state regulation of railroads must be confined to intrastate traffic, and that even in the absence of Federal action, no authority was vested in the states to regulate such portions of interstate hauls as might lie within their borders. The major portion of railway traffic was thus free from control, and the necessity of national legislation became urgent. As a result of all these influences, the Interstate Commerce Act, which has remained the basis and principal framework of our system of Federal railroad regulation, was placed upon the statute books.

The legislation of 1887 created the Interstate Commerce Commission and ostensibly clothed the commission with power to establish reasonable rates and to prevent discriminatory practices. The primary purpose of the Act, and of the extensive machinery set up for its enforcement, was to curb rate discrimination and to check high tariffs. The numerous other provisions incorporated in the enactment were subsidiary to the achievement of this main end. Thus, the anti-pooling section of the law was doubtless made part of the legislation in order to prevent the more effectively, by this indirect means, the levy of excessive charges. In like manner, the provisions enjoining upon the carrier full and uniform publicity in the establishment and change of rates, and vesting in the commission large powers of investigation with reference to the operation and management of the railroads, were calculated to strengthen the authority of the government in its efforts to remove discrimination and extortion. The regulation of accounting practices was likewise intended to facilitate the discovery and elimination of excessive returns and preferential adjustments, by providing for the commission the

[1] 49th Congress, 1st Session, Senate Report 56.

[2] Wabash, St. Louis & Pacific Ry. Co. *v.* Illinois, 118 U.S. 557, 1886.

necessary information for effective enforcement of the public policy incorporated in the Act to Regulate Commerce.

While much was accomplished, between 1887 and 1906, through the instrumentality of this legislation, the Interstate Commerce Commission encountered many difficulties. Some of them, of a relatively minor character, were met by speedy amendment or supplementary legislation. Thus, by an amendment passed in 1889, three days' notice was required for reductions in rates, in order to render more difficult the promulgation of so-called "midnight tariffs," used by the railroads as a means of granting special advantages to favored shippers, in addition to the ten days' public notice of advances stipulated in the original Act. The inability of the commission to secure essential testimony in important investigations led to the enactment of the Compulsory Testimony Act in 1893. The highly burdensome delays which, from the beginning, accompanied the enforcement of the commission's orders in the courts led to the adoption of the Expediting Act in 1903. The Elkins Act of 1903, which was largely urged as an anti-trust measure, in order to remove the artificial stimulus to industrial monopoly provided by preferential advantages in railroad rates and service, and which received the approbation and support of the carriers as a means of bolstering up their decreasing revenues, substantially strengthened the law against discrimination and thereby increased the effectiveness of the commission. As a result of the Elkins amendments the railroad corporations as well as their officers and agents were made liable for the granting of discriminatory privileges; the shippers as well as the carriers were made subject to the penalties provided for the violation of the provisions against discrimination; the published tariffs were declared to be the sole standard of lawful rates, and every departure from them was to be regarded as conclusive proof of discrimination.

But during the same period the Interstate Commerce Commission, through adverse judicial interpretation of the statute, was shorn of its most essential powers for effective administrative regulation of railway rates. For a period of ten years the commission had prescribed maximum reasonable rates in lieu of those which, upon investigation, had been found to be unjust or unlawful. The commission had assumed this authority on the basis of the statutory declaration that

all rates must be just and reasonable, coupled with the power vested in it to execute and enforce the provisions of the statute. In the Maximum Freight Rate Decision, however, rendered in 1897, the Supreme Court of the United States decided "that the power to prescribe rates or fix any tariff for the future is not among the powers granted to the commission.[1] The rate-making power of the commission was thus effectively destroyed. The very foundation of the system of administrative railroad control sought to be established through the creation of the Interstate Commerce Commission was thereby uprooted; for in the absence of governmental authority to prescribe reasonable rates for the future, the shipper is without effective remedy against excessive charges and the public is without adequate protection against the abuse of monopoly power. The object of sound rate regulation is to establish a proper adjustment, as to compensation for service, between the carriers and the public, and not merely to rely upon private redress for each specific injury suffered by the individual shipper; this end was rendered impossible of attainment under the court's interpretation of the commission's rate-making authority.

But the power of the commission was still further nullified by judicial interpretation. The long-and-short-haul clause of the Act of 1887 was directed against a special form of local discrimination. It aimed to prevent higher charges in the transportation of passengers or goods "under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance." The commission's interpretation of this provision had justified a departure from the long-and-short-haul principle only when water competition or railroad competition not subject to the jurisdiction of the Act to Regulate Commerce, was present at the more distant point. Until 1897, this construction rendered the efforts of the commission to reduce the numerous maladjustments of this character that had grown up in the rate structure reasonably effective; in that year, however, the Supreme Court, by holding, in the Alabama Midland Case, that the mere existence of railroad competition at the more distant point constituted such a dissimilarity of circumstances and conditions as to justify a departure from the long-

[1] I.C.C. *v.* Cincinnati, New Orleans & Texas Pacific Ry. Co., 167 U.S. 479, 1897.

and-short-haul principle, virtually destroyed the power of the Interstate Commerce Commission to keep within due restraint this objectionable form of local discrimination. Thereafter the carriers were free, without the consent of the commission and without regard to the demands of public welfare, to impose such discriminatory charges wherever their own financial interests would be furthered by such action. The combined effect of the denial by the courts of the commission's rate-making power and their nullification of the long-and-short-haul clause was to cripple the commission very seriously in its efforts to enforce, by specific order, the public policy incorporated in the Act to Regulate Commerce. In the words of the dissenting opinion of Justice Harlan in the Alabama Midland Case:

> Taken in connection with other decisions defining the powers of the Interstate Commerce Commission, the present decision, it seems to me, goes far to make that commission a useless body for all practical purposes, and to defeat many of the important objects designed to be accomplished by the various enactments of Congress relating to interstate commerce. The commission was established to protect the public against the improper practices of transportation companies engaged in commerce among the several states. It has been left, it is true, with power to make reports and to issue protests. But it has been shorn, by judicial interpretation, of authority to do anything of an effective character.[1]

The dominance of the Interstate Commerce Commission

The year 1906 is taken as the beginning of the concluding period in American railway development prior to the war, because through the Hepburn amendments of that year, and through the Mann-Elkins Act of 1910, the authority of the Interstate Commerce Commission was so rehabilitated and extended as to render the commission for the first time, in spite of a number of important deficiencies which we shall note later, an administrative agency reasonably capable of regulating the activities of the carriers for the protection of the public welfare.

The most significant feature of the Hepburn Act was the restoration of the rate-making powers of the commission. Authority to prescribe maximum rates for the future, in lieu of those found to be unjust or unreasonable, was expressly delegated to the commission, so that its control over railway charges was no longer purely nominal, or limited to

[1] I.C.C. *v.* Alabama Midland Ry. Co., 168, U.S. 144, 1897.

the right of declaring past rates excessive or discriminatory. This rate-making power was further augmented by the Mann-Elkins Act. The commission was authorized to suspend rate advances pending their investigation as to reasonableness. The 1910 legislation also restored the effectiveness of the long-and-short-haul clause. Through the elimination of the phrase "under substantially similar circumstances and conditions," the long-and-short-haul principle became absolutely binding upon the carriers, unless a departure from it was expressly authorized by the commission. Furthermore, through the extension of the commission's jurisdiction, in the 1906 legislation, the ability of the government to reach other forms of discrimination was greatly strengthened. The Act to Regulate Commerce was made applicable to express companies, sleeping-car companies, and pipe-lines; the railroads subject to the act were declared to include switches, spurs, tracks, terminal facilities, freight depots, yards, and grounds; the transportation service to be regulated was so defined as to embrace all instrumentalities or facilities of shipment or carriage irrespective of ownership or contract. By these means the commission was the better able to curb the monopoly powers of the Standard Oil Company that were so largely dependent upon its utilization of pipe-lines; the private-car lines, which had been frequently used for the purpose of effectuating rebates to favored shippers, came under the direct control of the commission; the so-called "industrial railroads," or tap lines, which have served in recent years as agencies of preferential treatment, were brought under the jurisdiction of the commission's authority. The "commodities clause" of the Hepburn Act, by the terms of which it was made unlawful for a railroad company to transport in interstate commerce any commodity (other than timber or the manufactured products thereof) of which it is the producer or owner, or in which it has any direct or indirect interest (unless such commodity is both necessary and intended for its own use as a common carrier), was likewise directed toward the elimination of objectionable discriminatory practices. And as a means of assisting the commission in the enforcement of all these provisions concerning rates and discrimination, the 1906 legislation conferred upon the commission authority to exercise strict supervision of accounting practices. The general power of the commission to prescribe a uniform system of railway accounts was supplemented by authority to prescribe

the forms of all accounts, records, and memoranda; it was made unlawful for the carriers to keep any other accounts or records than those prescribed or approved by the commision; and the commission was given the right of access at all times to the accounts and records of the carriers, and to employ special examiners for their inspection.

Finally, important changes with regard to procedure and enforcement were introduced, through judicial and legislative action, which served to modify the position of the Interstate Commerce Commission. It will be recalled that in the granger cases of the seventies the Supreme Court had denied the existence of the right of judicial review; it had declared legislative enactments and administrative orders with regard to railroad rates and charges, once the right to regulate was recognized, to be final and conclusive. In subsequent cases, however, the doctrine of judicial review began to emerge, and by the end of the eighties it had become definitely established. "The question of the reasonableness of a rate of charge for transportation by a railroad company," said the Supreme Court in 1889, "involving, as it does, the element of reasonableness, both as regards the company and as regards the public, is eminently a question for judicial investigation, requiring due process of law for its determination. If the company is deprived of the power of charging reasonable rates for the use of its property, and such deprivation takes place in the absence of an investigation by judicial machinery, it is deprived of the lawful use of its property, and thus, in substance and effect, of the property itself, without due process of law, and in violation of the Constitution of the United States; and in so far as it is thus deprived, while other persons are permitted to receive reasonable profits upon their invested capital, the company is deprived of the equal protection of the laws.[1] This right of the courts under the fourteenth amendment to review railroad rates established by legislatures or commissions led to the development of judicial standards of rate reasonableness. The "fair value" and "fair return" of the famous case of Smyth *v.* Ames,[2] decided in 1898, were but the starting-point in the formulation of principles and technique of railroad valuation. There are radical differences of opinion among students of the railroad problem, and wide divergencies in both theory and practice between

[1] Chicago, Milwaukee & St. Paul Ry. Co. *v.* Minnesota, 134 U.S. 418, 1890.
[2] 166 U.S. 466.

courts and commissions, with regard to what constitutes proper standards for determining fair value of railroad property by which the reasonableness of railroad rates is to be tested. Market value, actual cost, reproduction cost, reproduction-cost-new-less-depreciation, cost of replacement, and many modifications and combinations of these standards, have their warm adherents among economists, railroad and public service commissions, and in the courts. The tendencies are even more strikingly divergent in the application of these general standards to particular elements in the valuation process. When the results of the Federal valuation of railroad properties, undertaken by the Interstate Commerce Commission in 1913 and still unfinished, are made available, they may serve as a basis for formulating legislative and administrative standards of rate regulation; for the present the dominant authority in matters of valuation, and hence in the ultimate basis of financial regulation, is vested in the courts. Neither the Hepburn amendments of 1906, nor the Mann-Elkins Act of 1910, improved the status of the commission in this regard.

But other maladjustments in the relationship between the Interstate Commerce Commission and the courts had arisen between 1887 and 1906. Intolerable delays accompanied the settlement of railroad rate disputes. The carriers were free, under the original Act, to disregard the orders of the commission until such orders were sustained by judicial decision; the burden was upon the commission to take the necessary steps for the enforcement of its decrees; controversies were not terminated until finally adjudicated by the Supreme Court of the United States. Moreover, there was a marked disposition on the part of the Federal courts to accord independent consideration to the facts upon which the commission's orders were based, and frequently to admit new evidence that had been deliberately withheld by the railroads at the original hearings before the commission. This attitude of the courts, coupled with a decided tendency on their part to substitute judicial discretion for administrative judgment in large matters of economic policy, served to discredit the Interstate Commerce Commission — diminishing its authority and weakening its influence. The position of the commission was thereby distinctly subordinated to that of the courts; the investigations and hearings of the commission assumed the rôle of preliminary proceedings, merely preparatory to the real adjudication of railroad disputes by the courts.

Many of these difficulties were met by provisions of the Hepburn Act modifying the situation with regard to procedure and enforcement. The orders of the commission became binding immediately upon their promulgation, the burden being thrown upon the carriers to seek relief in a court of competent jurisdiction, or to suffer the accumulation of penalties provided for violation. Provision was made for rehearings before the commission, such rehearings not necessarily operating to suspend the enforcement of the original orders. It was provided that no injunction might be issued restraining the enforcement of the commission's orders without a hearing, after five days' notice to the commission. It was made the duty of the circuit court, upon application for a decree to enforce an order of the commission, to issue such an injunction if the order of the commission appeared to have been "regularly made and duly served." While there was no concrete enunciation of what constitutes a "regularly made" order, and hence there was still opportunity for the exercise by the courts of a broad judicial review, subsequent litigation, especially since 1910, has disclosed a marked tendency on the part of the courts, through their own interpretation of these provisions, to recognize the Interstate Commerce Commission as the dominant governmental agency for the regulation of the railroads. There has been an unmistakable approach to the ideal relationship between the commission and the courts, in a system of railroad regulation designed to be essentially administrative in character, whereby the function of the courts is limited to determining the constitutionality of the enactments under which the commission operates and restraining the commission within the scope of the powers expressly or incidentally conferred upon it. . . .

By 1914 there were more than 250,000 miles of line (single track) in the United States, more than one-third of the world's railway mileage and "equal," Professor Ripley has put it, "to a ten-track railroad completely encircling the globe. . . ." The equipment . . . comprised some 65,000 locomotives and . . . more than 2,500,000 cars of all kinds. . . . The capitalization of the net income for the year 1914 at 5 per cent would amount to almost $18,000,000,000,[1] and many reliable students of railroad conditions place the value of the railroad properties at that time in excess

[1] There were at this time almost $16,000,000,000 of railroad stocks and bonds outstanding in the hands of the public.

of this figure. . . . This would about equal the total amount invested in manufactures in 1914. . . . The number of employees directly engaged in railroad transportation was about 1,700,000. . . .

The public character of railroad transportation was definitely recognized, and the right of the state to regulate the railroads was clearly established. The inherent evils and inevitable abuses which flow from unrestrained competition or unregulated monopoly in the railroad industry had impressed upon the public mind the urgent need of exercising this governmental authority. Accordingly, a comprehensive system of railroad regulation was developed both by the states and by the Federal government. . . . The Interstate Commerce Commission came to hold the chief place in this system of railroad regulation. While a large mass of Federal and state legislation aimed to impose direct restraints upon the activities of the carriers, and while the very existence of the Interstate Commerce Commission and of the state railroad commissions, as well as the scope of their jurisdiction and powers, was dependent upon statutory enactment, legislative regulation was subordinated to administrative control subject to judicial scrutiny. . . . It had come to be recognized that both the punitive methods of judicial regulation and the spasmodic and inflexible methods of legislative regulation were ineffective. Only through the continuous and constructive activities of administrative commissions could such an adjustment of the relationship between the carriers and the people be secured as would afford an adequate protection for private rights and a proper safeguard for public interests. . . .

But this development had not been accomplished without the persistence of some inconsistencies and many inadequacies in the system of railroad regulation. While regulative effort, in some respects, was proving unduly burdensome and unnecessarily restrictive, certain important public phases of the railroad problem were left altogether unregulated. The results pointed to a double necessity: to both a loosening and a tightening of the governmental reins. These shortcomings made more difficult the tasks involved in the war administration of the railroads, and rendered more urgent the need of readjustment following the war. . . .

In the first place, a number of legal obstacles to railroad coöperation had been established that ran counter to the natural functioning of the railroad industry. The prohibition of pooling arrangements, as incor-

porated in the original Act to Regulate Commerce, and the prevention of rate agreements and railroad consolidations, under the judicial interpretation of the Sherman Anti-Trust Act, were the more important of these obstacles. Pooling, whether of traffic or revenue, had been resorted to, for the most part, as a means of eliminating rate wars, of preventing discrimination, and of preserving the stability of railroad income. These were highly desirable ends, from the standpoint of the public interest as well as for the protection of the carriers. With the prohibition of pooling arrangements in 1887, the railroads reverted to simple rate agreements to achieve these ends. These agreements were designed to maintain a reasonable level of rates and charges, to establish service standards, and to promote coöperation among the carriers. When, in 1897, the Supreme Court of the United States declared such agreements to fall within the prohibitions of the Sherman Anti-Trust Act, the roads were compelled to resort to formal consolidation, either through the instrumentality of holding companies, or by means of long-time leases and intercorporate stock ownership. Through consolidation the independence of the constituent companies is destroyed, in all matters of finance and operation, as well as in the adjustment of rates and service. Coöperation is complete; unity of interest is established. In the years following 1897, therefore, because of the illegality of informal methods of coöperation, the movement toward railroad consolidation was abnormally stimulated. But this tendency, too, was checked through legal condemnation. The prohibitions of the Anti-Trust Act were not only held to be applicable to the railroads, but were interpreted to include all prohibited restraints, whatever the form or method through which they may be achieved. The dissolution of the Great Northern-Northern Pacific combination in 1904 and of the Union Pacific-Southern Pacific merger in 1912 are outstanding illustrations of this policy. As a result, the only means of coöperation open to the railroads was to rely upon informal committees and traffic associations, whose "suggestions" as to rates and service practices, when financial advantage was not thereby jeopardized, were generally followed. Upon this makeshift for unification, possessing no legal validity, the stability of the rate structure and the coördination of facilities were made to depend. In 1914, therefore, at the threshold of the war emergency, the roads were not in a position to adopt effective coöperative

measures. It was illegal to pool freight or revenue, in order to establish direct routing, eliminate unnecessary passenger service, or make the fullest use of available equipment; and it was financially disadvantageous, in view of the large number of competitive railroad systems, to provide a unified transportation service.

The persistence of coöperative efforts of varying degrees of effectiveness throughout the history of American railroads is grounded in the very nature of the railroad industry. Because of fundamental physical and economic characteristics the railroad business is naturally monopolistic. In view of the magnitude of the initial investment and the time-consuming process of railroad construction, competition is slow to arise. When it does arise, its chief influence becomes operative only at junction points. Even at these points, it tends to be only of temporary duration, containing within itself the germs of its own destruction. Railroad operations are subject to increasing returns, and stimulate an abnormal desire for traffic; railroad services are rendered very largely at joint cost, and obscure the profitable limit of rate reduction; railroad plant is highly specialized, and renders impractical an abandonment of the field. Competition between railroad corporations, therefore, tends to become unduly keen and severe, cutthroat in method and self-destructive in result. Resort to coöperation becomes natural and inevitable. It is but a reflection of the monopolistic character of the railroad industry, and serves to protect the public against the evil effects of rate fluctuations and discriminatory practices.

The very fact of railroad regulation constitutes a tacit acceptance of this doctrine. Competition cannot be relied upon to safeguard the public interest; the conscious exercise of public authority must be invoked. Railroad transportation is "affected with a public interest" very largely because of this natural tendency to virtual monopoly; and the multitudinous principles and elaborate machinery of regulation are designed to provide safeguards against the abuse of monopoly power. But by invalidating, through legislative enactment or judicial construction, the various coöperative efforts of the railroads sketched in the preceding paragraph, the law adopted a policy logically inconsistent with its own attitude in exercising public control, and practically subversive of the normal functioning of railroad enterprise. Enforced competition was

imposed upon an industry assumed to be naturally monopolistic. Rate wars were discountenanced and discriminatory practices were prohibited, but the conditions fundamentally responsible for these evils — the exigencies of railroad competition — were legally stimulated. The fear of unregulated monopoly might well lead to such a policy. But with extensive powers of control vested in administrative commissions, there was no danger that the legalization of pooling, for example, would lead to excessive rates or public exploitation. The conditions of coöperation might themselves be subjected to the supervision of the same governmental authority that was clothed with rate-making power. The anomalous character of the situation and the need of relief had long been recognized, but at the outbreak of the European war both the railroads and the public were still laboring under the handicap imposed by these legal obstacles to necessary and beneficial railroad coöperation.

Secondly, the rate-making policy of the Interstate Commerce Commission, because of the absence of definite legislative standards, had failed to safeguard the credit of the carriers and attract into the railroad industry a sufficient flow of capital for the proper maintenance and development of the transportation service. This policy had grown up, in piecemeal fashion, to meet the exigencies of changing conditions and to combat the effects of specific evils. Since the railroads had, from the beginning, manifested able and vigorous antagonism toward regulative effort, the activities of legislatures and commissions were confined very largely to restraining railroad abuses, rather than to formulating a constructive program for the establishment of a just and stable relationship between the public and the carriers. The concepts of "fair value" and "fair return" were being laboriously developed by courts and commissions through private litigation, while the lawmaking bodies refrained from enunciating the concrete principles and standards which alone could render public policy in rate regulation reasonably definite and effective. The Interstate Commerce Commission was saddled with the responsibility of fashioning these standards as well as of applying them; yet the doctrine of confiscation, necessarily enforced by the courts with a very measurable degree of flexibility, subjected its orders to the uncertainties and vicissitudes of judical review. The policy of the commission, even when positive in tone and constructive in content, was but

a preliminary and "advisory" expression of the principles of fair value and fair return that should govern; the final determinations of the courts (because rate-making, in spite of these difficulties, is admittedly a legislative and not a judicial function) were inevitably negative in character. The situation was chaotic. The limitations upon private profit in railroad enterprise were vague and undefined; the minimum return of which capital could not be legitimately deprived was concretely ascertainable only after prolonged litigation. . . .

Finally . . . there was the unconscionable burden imposed upon the transportation system through the exercise of confusing and conflicting authority by the nation and the states. It was an almost impossible task for the railroads to comply with the dictates of forty-nine governmental masters, each dominated by its distinctive conception of the demands of public interest. . . . The regulations of the various states were frequently in conflict with each other and with the requirement of the Federal government. The variety of stipulations with regard to safety devices, operating practices, and financial supervision resulted in confusion and unnecessary expense. Safety appliances were often duplicated by roads crossing state lines; unusually large crews were frequently carried because of abnormal full crew laws; stringent financial requirements were either evaded through ingenious means or served to dam up the flow of capital into particular localities. . . . Moreover, aside from the inevitable fusion of local and national interests in the development of the railroad rate structure, many of the states utilized their power over intrastate rates as a deliberate means of securing economic advantage for themselves at the expense of contiguous states and competitive producers engaged in interstate commerce. . . . In the Minnesota Rate Case of 1913,[1] involving, among other important issues, the constitutionality of certain intrastate rate reductions on the ground of their interference with interstate commerce (because of their indirect influence upon the prevailing interstate rates to border cities in the neighboring states of Wisconsin and North Dakota), the Supreme Court of the United States declared that Congress possessed the power to regulate even intrastate rates in so far as they burden interstate commerce. . . . In the Shreveport Case [2] of the following year, involving an actual conflict be-

[1] 230 U.S. 352, 1913. [2] 234 U.S. 342, 1914.

tween the Interstate Commerce Commission and the Texas Railroad Commission with regard to certain rates applicable to points entirely within the state of Texas, the Supreme Court upheld the contention of the Interstate Commerce Commission that these rates were discriminatory against competing places in the state of Louisiana, and hence constituted an indirect interference with interstate commerce.

The Interstate Commerce Commission, although it had frequently asked for authority over railroad capitalization, possessed no power to regulate security issues. This lack of authority rendered more difficult the exercise of its rate-making powers, and tended to obscure the relationship between railroad investment and transportation earnings. Moreover, it made possible the "horrible examples" of financial manipulation in the railway field which have become classic, and helped to lend color to the widespread opinion that the railroads were very generally overcapitalized. These circumstances, as well as the prevailing belief that the rate policy of the Interstate Commerce Commission was unduly restrictive, served to undermine the financial position of the railroads and impair their credit. . . . The regulation of service was likewise neglected in very large measure by the Federal government. It was limited, for the most part, to Safety Appliance Acts, establishing express standards for safety of operation, and clothing the Interstate Commerce Commission with power to enforce them, and to extend their applicability as changing conditions might warrant. The problem of the adequacy of the transportation service received very little attention. As a result, periodic car shortages had been recurring during the past two decades, and congestion at terminals was a frequent cause of industrial difficulty. Through the pressure of competition, shippers were treated with unreasonable liberality, and wasteful service practices were allowed to crystallize into established routine. . . . It was beyond the authority of the Interstate Commerce Commission to require the pooling of equipment, or the joint use of facilities, in order that the national railway plant might be fully utilized to meet public needs. These conditions were distinctly detrimental to the transportation service. Their effect was realized most strikingly when the war imposed an unprecedented traffic burden upon the railroads and the necessity of providing adequate service became of paramount national importance.

XXVI. WAR-TIME OPERATION OF RAILROADS [1]

By Frank Haigh Dixon
Professor of Economics, Princeton University

Federal operation divides itself naturally into two parts, the war period of eleven months, ending with the armistice, and the interim period from the end of 1918 until the roads were turned back on March 1, 1920. So far as the first period is concerned, there is almost a universal feeling that the undertaking was essential, and that while mistakes may have been made in operating policies, these mistakes are more readily discernible now than they could have been at the time. The causes that led to taking possession were a sufficient justification. Everyone worked with loyalty and enthusiasm, from the highest executive to the humblest employee. On the whole, the results were gratifying and the year must be regarded as a success. Problems that loomed up huge and insoluble in December, 1917, particularly the labor problem and the problem of finance, were handled in such a way as not only to prevent a stalling of the transportation machine, but to accelerate its efficient working as a part of the war organization. The financial deficit of $200,000,000 was wholly due to the fact that wage increases were in effect from January 1, while rate increases took effect not much before July 1, and this deficit was a justifiable charge against war account.

The second year is more difficult to estimate. At the beginning there was a difference in point of view between the Railroad Administration and the railroads as to when Federal control should cease. It became clear before many months, however, that the public was not favorable to a further continuance of Federal operation, and that the roads would go back as soon as Congress could arrange the procedure. In fact, in his message to Congress cabled from Paris in May, 1919, the President had announced that the railroads would be handed over to their owners at the end of the calendar year. Therefore, the Railroad Administration

[1] Adapted by permission of Charles Scribner's Sons from *Railroads and government*, by F. H. Dixon, Charles Scribner's Sons, 1922, pages 206–209.

in 1919 was engaged in the thankless task of holding the properties together until the day of official dissolution. No long-time plans could be initiated. It was a day-to-day administration settling only such problems as were absolutely necessary to keep the plant in operation. This situation was aggravated by the failure of Congress to pass the necessary appropriations, and by the steel and coal strikes in the fall of 1919. It was satisfactory neither to the public, the railroads, nor the Railroad Administration. It was a case of waiting upon the will and wisdom of Congress.

Whether Federal operation on the whole was more costly than private operation would have been is an idle question, because private operation would have been an impossibility. No thorough and satisfactory coöperation on a voluntary basis could have been effected under existing law, and it is not clear that railroads would have coöperated successfully, even if they could. Whether or not Federal operation is held wasteful and unnecessarily costly rests largely upon one's conclusions as to the Administration's labor policy. In matters of operation, there were many savings effected through coöperation, some of which have been retained under private management. On the financial side, the government's aid was indispensable and may perhaps have saved the roads from bankruptcy. Capital could have been secured in the market by the individual roads only at prohibitive prices, if at all. The government provided at reasonable rates the funds needed for capital investment and bridged the gap between rising costs and revenues. With the popular feeling against price increases affecting their ability to raise their rates, with the irresistible demands for wage increases, and the constantly rising prices of materials and supplies, most of the railroads would have escaped bankruptcy, if at all, only by the most narrow margin. It is doubtful whether any but the most substantial of the carriers, those with large accumulated surpluses, and with outside sources of income not subject to Federal confiscation, could have weathered the storm at all.

For the labor policy the government was responsible. It established the eight-hour day with time and a half for overtime, it drew up the national agreements, it accelerated the development of unionism. It broke down local discipline and gave the individual employee a national outlook and a sense of national brotherhood. It is too soon to judge

what the ultimate outcome will be, and whether it will work to the benefit of all concerned. Certainly, for the time being, this policy increased seriously the difficulties of the railroads in restoring their individual systems to efficient working condition. And it accounts to a large degree for the deficit financiering of the Railroad Administration — this combined with the indisposition to increase rates to meet increased expenses, a policy already sufficiently discussed. But with all the indictments against the Administration in mind, one could not in the transition year following the war have looked with complacency upon a regime of private operation, in which railroads would have been compelled to grant constant increases in wages, would have been obliged to seek additions to capital in the open market at constantly increased prices, and would have appeared before the Commission as suppliants for corresponding increases in rates to meet these increased costs. The effect upon prices, with its tendency to multiply the increase in the price charged, would have been deplorable. And it must also be remembered that increases in rates do not bring immediate response in revenues, and in some instances bring no response at all. The more we study the situation, the more probable it appears that the railroads, if thrown upon their own resources immediately after the armistice, would have failed to make a record materially better than that of the Federal administration.

XXVII. THE INTERSTATE COMMERCE COMMISSION [1]

By Joshua Bernhardt

The important changes in duties of the Interstate Commerce Commission following the enactment of the Transportation Act of 1920 resulted in a general reorganization, both of administrative machinery and of internal organization. To some extent the various laws defining the work of the Commission prescribe also its general organization.

The law provides for eleven Commissioners, not more than six from the same political party appointed by the President with the concurrence of the Senate for seven-year terms [2] at salaries of $12,000 per annum. No person in the employ of or holding any official relation to any common carrier subject to the Interstate Commerce Law or who is in any manner pecuniarily interested through ownership of stocks, bonds, or in any other way, is eligible for such office. No member may engage in any other business, vocation, or employment. With regard to its staff the Commission has authority to employ and fix the compensation of such employees as it may find necessary for the proper performance of its work. The salary of the secretary of the Commission, however, is fixed by law at $7,500. The Commission is specifically authorized to employ expert examiners [3] and other assistants for the work of valuation, inspection of carriers' accounts, and investigation of block-signal systems and automatic control appliances; to employ such attorneys as it finds necessary for proper legal aid and services of the Commission or its members in the conduct of its work or for proper presentation of the public interest in investigations made by it or in cases or proceedings pending before it; and to appoint fifty district inspectors of locomotives, after competitive civil service examination.

The Commission is authorized to utilize the services of the district attorneys of the United States for enforcement of the provisions of the

[1] J. Bernhardt, *The Interstate Commerce Commission*, Johns Hopkins University Press, 1923, pages 105–109.

[2] The original Act provided for five Commissioners to serve for six-year terms.

[3] Who have power to administer oaths, examine witnesses, and receive evidence.

Interstate Commerce Law by making it the duty of any district attorney of the United States to whom the Commission may apply "to institute in the proper court and to prosecute under the direction of the Attorney General of the United States all necessary proceedings for the enforcement of the provisions of the Act and for the punishment of violations." The costs and expenses of such prosecutions are to be paid out of the appropriation for the expenses of the courts of the United States.

Functional divisions of the Commission

In order to function expeditiously and effectively, any body charged with such diverse responsibilities as has been entrusted to the Interstate Commerce Commission under the various laws defining its power and activities, must be organized in a manner to permit of considerable subdivision of labor and yet to assure harmony and coördination in the work of its various units into a consistant general policy. To attain the first objective the members of the Commission have been grouped into five divisions as follows:

Division 1. Matters relating to the valuation of railroads; matters arising under the Safety-Appliance Acts, the Accident-Report Act, the Hours-of-Service Act, the Ash-Pan Act, the Boiler-Inspection Act, the Block-Signal Resolution; and the installation of automatic train stops and train-control, or other safety devices.

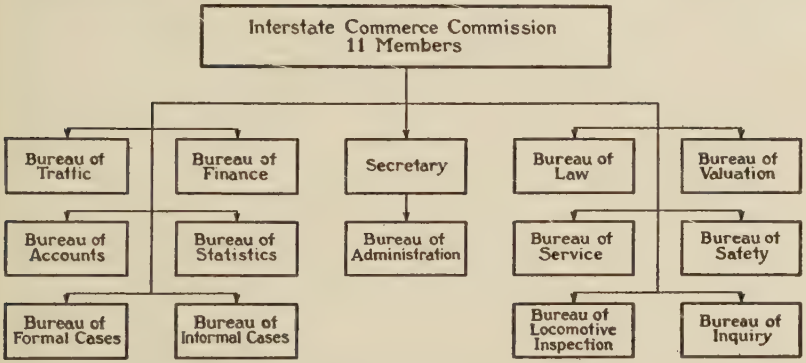
Division 2. Applications and requests for suspension of rates, fares, and charges; awards of reparation when unreasonable rates have been exacted. The formulation of regulations for the safe transportation of explosives and other dangerous articles; requests and applications for authority to establish and maintain tariffs carrying released rates under Section 20 of the Interstate Commerce Act; and matters arising under Section 208*a* of the Transportation Act, which prohibits reductions in the rates, fares, and charges which on February 29, 1920, were in effect on lines of carriers subject to the Interstate Commerce Act, prior to September 1, 1920, without approval by the Commission, the disposition of matters coming from the Board of Reference, composed of chiefs of various sections, which passes upon minor matters of an administrative character, as to which the policy is deemed to have been settled by previous rulings.

Division 3. Disposition of formal cases not allotted to a Commissioner or reserved by the Commission; penalties for violations of the Interstate Commerce Act and related Acts.

Division 4. Reimbursement of carriers for deficits during government control; new loans to railroads; certificates of convenience and necessity for new construction or abandonment; consolidation and the issuance of securities.

Division 5. Car service; extensions; common use of terminals by carriers; connection between rail lines and docks; routing as between carriers of traffic which is unrouted by the shipper.

Each division has three members except Division 1, which has four.



All except Division 5, in addition to the above duties, act in monthly rotation to hear argument in and determine such cases as are not reserved for consideration by the full Commission. While one division is hearing arguments, the other two divisions are occupied in finally disposing of submitted cases and in performing the other duties which daily come before the Commission. From the assignment of the work by divisions as outlined, the full Commission reserves for its consideration and disposition as a unit, all general investigations, applications for rehearing, reargument, and other consideration, and certain other particularly enumerated cases.

Coördination of the actions of the various divisions into a consistent general policy is attempted through "free and full interchange of information and views as to all work in progress," supplemented by frequent conferences of the entire body as occasion demands.

The Commission's staff

The fundamental principal in the organization of the staff has been to keep the organization as simple as possible, with centralized responsibility, and to afford a ready means to bring to bear the judgment of the Commission on any matter. Each bureau has a single head, who reports to a Commissioner, who in turn can bring matters to a division, or, if need be, to the entire Commission, for determination. As already noted above, a board of referees, composed of chiefs of various sections, passes upon minor matters of an administrative nature, as to which the Commission's policy has been settled by previous rulings.

There are thirteen such bureaus concerned with: administration; formal cases; informal cases; traffic; inquiry; law; safety; locomotive inspection; service; finance; accounts; statistics; and valuation.

XXVIII. THE BURDEN OF RAILROAD REGULATION[1]

By George G. Reynolds

The overwhelming burden of responsibility which is now placed upon the Interstate Commerce Commission tends to impair the efficiency of regulation. It is not necessary to give a complete list of its statutory duties to show that it is unreasonable to expect prompt and careful consideration of all matters referred to it. An enumeration of a few of its more important functions will suffice for that purpose. It must hold hearings and render decisions on complaints alleging violation of the Interstate Commerce Act, on new schedules of rates which have been suspended pending investigation, on applications for certificates of convenience and necessity covering proposed construction, extension or abandonment, on applications for authority to issue securities, and on applications for authority for a road to acquire control of other roads. Legislation will probably be enacted at the next session of Congress enlarging the power of the Commission with respect to the consolidation of interstate railroads. It must supervise the regulation of the general level of rates throughout the country to provide the fair return contemplated by Section 15*a* of the Interstate Commerce Act, and in this connection it has to conduct long and complicated investigations such as those resulting from the applications of the western railroads for increased rates, and from the Hoch-Smith Resolution of January 30, 1925,[2] requiring an investigation of the rate structure with a view to making readjustments as between various localities, classes of traffic and classes of commodities, with particular reference to the existing depression in agriculture. It is required to enforce the provisions of the Interstate Commerce Act for the recapture of earnings in excess of a fair return and for the administration of the fund resulting from such recapture. It must supervise and prescribe the methods of accounting for

[1] G. G. Reynolds, *The distribution of power to regulate interstate carriers*, Columbia University Press, 1928, pages 374–377. Reprinted by permission.

[2] 43 U.S. Statutes at large, 801.

interstate railroads, which entails complicated work, such as that involved in the recent reclassification of carriers' accounts and the order concerning the establishment of depreciation reserves. In 1913 the Commission was charged with the duty of making a complete valuation of the properties of the railroads subject to its jurisdiction, which has demanded the constant attention of the Commission for fourteen years, which has not yet resulted in a final valuation of any large railroad system, and which in its nature can never be completed because of the necessity of constant revision occasioned by additions, improvements and retirements. It is charged with the enforcement of the various Federal laws for the promotion of safety, such as the Hours-of-Service Act, the Safety-Appliance Acts, the Boiler-Inspection Act, and the provisions of the Interstate Commerce Act concerning automatic train-control devices. It must decide applications for permission for a person to hold a position as officer or director of more than one carrier. It must execute various provisions of the Clayton Anti-Trust Act relating to interstate carriers, including the supervision of dealings with other corporations having the same officers. Some idea of the volume of work which all this entails may be obtained from a statement in the annual report of the Interstate Commerce Commission for the year ending October 31, 1926, that 1,524 formal complaints were filed with the Commission during the year covered by the report, and that the Commission decided 1,035 cases so arising.[1] The hearing and decision of complaints is only one of the many functions which have been enumerated. During the same year the Commission conducted 1,584 hearings and took over 300,000 pages of testimony.[2]

It should be clear from this statement of the volume of the Commission's work that it is physically impossible for the Commissioners to give prompt and careful personal attention to the innumerable problems which require decision by them. To a very large extent this work must be delegated to subordinates. This is illustrated by the practice governing complaints of violations of the Interstate Commerce Act. The hearings are usually conducted by an attorney-examiner who takes the testimony and prepares a tentative report for the adoption of the Commission. It

[1] Interstate Commerce Commission, *Annual report*, 1926, page 33.
[2] *Ibid.*

is true that the parties may take exception to the examiner's report and may argue the matter before a division of the Commission sitting at Washington, but the fact remains that the findings and decision of the examiner frequently play an important part in determining the action of the Commission.

Another result of the concentration of regulatory power in the Interstate Commerce Commission is the delay in obtaining final decision on complaints and other proceedings brought before the Commission. The 1926 report of the Commission refers to a plan of "shortened procedure," which eliminates the taking of testimony and provides for decision on written memoranda offered by the parties. In cases handled in this way the Commission states that a decision is reached on an average of 455 days from the receipt of the complaint and 359 days from the receipt of the memorandum of facts.[1] It does not give figures for the time taken in disposing of cases in which testimony must be taken, but the average time in such cases presumably exceeds that in cases where the shortened procedure is used. In some matters expeditious disposition of proceedings is very vital, as where the development of new territory depends upon the prompt construction of railroad facilities. The possibility of delay in obtaining Federal authority for construction is shown by a recent decision of the Commission disposing of six applications for certificates of necessity and convenience to authorize the construction of new lines in the South Plains of the Panhandle section of Texas.[2] The first of these applications was filed July 20, 1923, on which hearings commenced in November of that year. The final decision of the Commission was not rendered until November 8, 1926. It then authorized the construction of approximately two hundred miles of railroad pursuant to two of the applications, filed respectively in April and July, 1925, on which hearings were held in July and October of that year, and denied the other four applications.

[1] Interstate Commerce Commission, *Annual report*, 1926, page 5.

[2] *Construction by Fort Worth and Denver South Plains Ry.* (1926), 117 I.C.C. 233.

POINTS DECIDED IN REPORTED RATE AND VALUATION CASES 161

Cottrell Lumber Co. v. *B. & O. R. R. Co.*, 136 I. C. C. 428.

347. Defendants' tariffs which restrict the routing of crossties by way of Demmler Transfer, Pa., originating in West Virginia, Maryland, and Pennsylvania when destined to Pittsburgh and Woodlawn, Pa., found not unreasonable or otherwise unlawful. Complaint dismissed.

Cherokee Mills v. *M. L. & T. R. R. & S. S. Co.*, 136 I. C. C. 431.

348. Rates on salt, in carloads, from Anse, La Butte, Avery, Barnett, Lafayette, Salt Mine, and Weeks, La., to Nashville, Tenn., found not unreasonable or otherwise unlawful. Complaint dismissed.

Hudson & Thompson v. *N. I. & N. R. R. Co.*, 136 I. C. C. 435.

349. Rates on salt, in carloads, from Anse, La Butte, Avery, Barnett, Lafayette, Salt Mine, Weeks Island, and Jefferson Island, La., to 12 destinations in Alabama and to Graceville, Fla., found unreasonable, and from New Iberia, Salt Mine, Weeks Island, and Jefferson Island, La., to Florence, Sheffield, and Tuscumbia, Ala., found unreasonable and unduly prejudicial. Scale of reasonable maximum rates prescribed and reparation awarded.

Beggs & Co. v. *B. & O. R. R. Co.*, 136 I. C. C. 442.

350. Previous finding, 120 I. C. C. 115, that rates on potatoes from points in Wisconsin, Minnesota, and North Dakota to destinations in Ohio, Pennsylvania, Maryland, Virginia, West Virginia, New York, New Jersey, Connecticut, and the District of Columbia were unreasonable to the extent indicated therein, reversed upon further consideration. Complaints dismissed.

Brownyard v. *U. P. R. R. Co.*, 136 I. C. C. 447.

351. Carload shipment of potatoes from Lyman, Nebr., to Denver, Colo., found overcharged and misrouted. Reparation awarded.

American Syrup & Preserving Co., v. *C., B. & Q. R. R. Co.*, 136 I. C. C. 449.

352. Rates on glucose or corn syrup, in tank-car loads, and in barrels, in carloads, from Chicago, Ill., and Keokuk, Clinton, Davenport, and Cedar Rapids, Iowa, to Nashville, Tenn., found unreasonable and unduly prejudicial and preferential. Reasonable rates prescribed for the future and undue prejudice and preference ordered removed. Reparation awarded.

Midcontinent Dealers Assn. v. *A. & E. R. R. Co.*, 136 I. C. C. 455.

353. Rates on certain waste materials, in straight and mixed carloads, from points in Kansas and Oklahoma to St. Louis, Mo., Chicago, Ill., and other destinations taking the same rates, found not unreasonable. Complainants not shown to have been damaged by reason of the relative adjustment in effect during the period of movement. The basis for future rates to these destinations, from points of origin in Oklahoma, Kansas, and other States has been prescribed in *Consolidated Southwestern Cases*, 123 I. C. C. 203. Complaint dismissed.

Ashland Leather Co. v. *S. Ry. Co.*, 136 I. C. C. 457.

354. Rates on leather, in carloads, from Brevard, N. C., to Ashland, Ky., found unreasonable but not otherwise unlawful. Reasonable rates prescribed for the future and reparation awarded.

Magnolia Petroleum Co. v. *A., T. & S. F. Ry. Co.*, 136 I. C. C. 459.

355. Fifth-class rates on iron and steel tanks, knocked down, in carloads, from Wewoka, Cement, and Gladney, Okla., to various destinations in Arkansas and Louisiana found unreasonable. Reparation awarded.

Louisiana Farm Bureau v. *L. Ry. & N. Co.*, 136 I. C. C. 462.

356. Rates on acid phosphate, in carloads, from New Orleans, La., to Coushatta and Carroll, La., on coastwise traffic originating at Baltimore, Md., found not unreasonable or otherwise unlawful. Complaint dismissed.

Asphalt and Petroleum Road Oil, 136 I. C. C. 465.

357. Proposed reduced rates on liquid asphalt and petroleum road oil, in tank-car loads, from points in south Pacific coast territory to Kansas City and St. Louis, Mo., found not justified. Suspended schedules ordered canceled and proceeding discontinued.

A Typical Page from a Report of the Interstate Commerce Commission
Note the variety in cases handled.

XXIX. FAIR VALUE AND FAIR RETURN [1]

John Maurice Clark
Professor of Economics, Columbia University

The Legal Doctrine

The courts have the ultimate authority to enforce upon public service companies the obligation of adequate service at reasonable rates, but their character is not well adapted to this task under present-day conditions, and it has been taken up by administrative commissions created by statute. The courts now assume a different function: that of interpreting the law and deciding whether the acts of commissions are in accord with it. This includes, of course, the Constitution, which is the supreme law; and the constitutionality of rate regulation hinges chiefly on the fifth and fourteenth amendments. These provide that private property shall not be taken for a public purpose without just compensation, and that no state shall deprive any person of life, liberty, or property without due process of law. The courts have held that extreme and unjust regulation may constitute a violation of these provisions.

In exercising the powers thus assumed, the courts are governed by the established doctrines of constitutional interpretation, one of which is that an Act of a legislature is to be deemed constitutional if it is reasonably possible so to interpret it. The general power of a legislature to control private actions in the common interest is to be given the benefit of that margin of discretion within which reasonable minds may differ. The legislatures, however, have spoken only in the most general terms, handing over the definite formation of policies to commissions, whose actions may not carry the same presumption of constitutionality. The courts have gone so far as to say that the reasonableness of a rate fixed by the Interstate Commerce Commission is a matter of fact and not of law, and that, under the law as it now stands, they are bound to regard

[1] J. M. Clark, *Social control of business*, 1926, pages 348–381. Reprinted by permission of the University of Chicago Press; abridged with the permission of the author.

the holdings of the Commission as final on such matters if its procedure has been legally correct. They will not weigh the evidence to see if it is conclusive from their standpoint. This rule does not apply, however, to the question whether a rate is constitutional or not. This is a matter of law, which the courts must determine in the last resort.

This distinction between reasonableness and constitutionality is logically doubtful, for reasons rooted in the underlying status of public-service industries. The very starting-point of regulation is the principle that the property of the company is held, and its business liberties are exercised, subject to the obligation to render fair service to all at reasonable charges. Property being a bundle of rights and liberties rather than a physical thing, the property of the public utility owners is of a different sort from property in a purely private industry. It actually includes less, and therefore the constitutional guaranties which protect it against regulatory action are not protecting the same thing, for the public right to a certain kind of regulation is definitely reserved, and qualifies the property rights of the owner.

The simplest way of looking at this seems to be that the property rights of the company cover the right to charge reasonable rates, but no more. If this is correct, then regulation begins to take property at precisely the point at which it forces rates below a reasonable level; above that point it is not a taking of property. In that case, confiscatory rates and unreasonably low rates are one and the same, the only practical difference consisting in the degree of certainty required for proof, and the question of which party is to be given the benefit of the reasonable doubt that arises in matters involving discretion and judgment.

Another possible interpretation, leading to essentially the same conclusion, is that any regulation is a taking of property, but that the police power of the state includes the right to whatever taking may be inseparable from enforcing the public's right to reasonable rates: and a reduction of rates which sincerely attempts to carry out this purpose, guided by a rational weighing of the appropriate evidence of reasonableness, constitutes the due process required by the Constitution. Beyond this, the point is reached at which even the police power does not justify the taking of property without compensation. Here again constitutionality depends on (1) the reasonableness of the rates fixed, and (2) the degree of dis-

cretion to be permitted to the regulating body in judging such reasonableness.

However that may be, the courts maintain the distinction between reasonableness, a legislative matter, and constitutionality, a judicial one, though the precise difference remains undefined. A court which thought 8 per cent on investment a fair return would probably sustain rates yielding 6 per cent, and might possibly uphold lower rates if justified by special conditions, but it would almost certainly condemn rates yielding only 4 per cent as confiscatory. This simply means, if the above theory is correct, that 4 per cent on investment is so clearly unreasonable, in the mind of the court, as to exceed the discretion properly allowable to the legislature and to overcome the presumption in favor of the constitutionality of any Act of the legislative power. Unconstitutionality, on this theory, is simply a departure from reasonableness which is incontestably clear, and to the disadvantage of the private owner.

The "rule" of value in Smyth v. *Ames*

The present legal doctrine in this matter is governed by the case of Smyth *v.* Ames, 167 U.S. 466, 1898, in which the court defined reasonable rates as rates yielding a fair return on the "fair value" of the property, and enumerated a list of criteria which might be taken into consideration in determining fair value, though taking pains to state that other facts might also be considered. "And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case."[1]

[1] The phraseology in which reproduction-cost is referred to is significant, suggesting that this is — as it had been up to that time — a check on original cost rather than an independent standard of fair value. The background of this case, as of all the earlier ones, was the period of falling prices which lasted from 1873 to 1897. From then on, the character of the issue changed as the world entered on a period of steadily rising prices, culminating in the enormous increases resulting from the World War. In the first period this standard was invoked by the public as a check on the inflated book

The inclusion of operating expenses and earning power under statutory rates as criteria of fair value is a logical curiosity, and the intent of the court in including them can only be cause for wonder. The earning power is evidence of the actual value which the legislature has bestowed upon the property, not of the value it ought to have under reasonable rates. This dictum — it is no more — with its bare list of heterogeneous elements, and with all the uncertainty as to the intended relation of these elements to the appraisal of the property, has been accepted as a "rule" of fair value by persons predisposed to seek and find a rule whether one exists or not. Its effect is to leave the basis in doubt between original cost, with subsequent additions, and cost of reproduction, for the other data suggested are of incidental character. The "rule" has also been construed as requiring commissions to make an estimate of reproduction cost as well as of original cost, and to give them both genuine consideration, and while this process of weighting is not one of mere averaging, and the court avoids indicating what weight should be given each element, still if it should be apparent that one element was given no weight at all, there might be a presumption that the rule of the court laying down due process of law had not been followed. The position in which this places any rate-making commission is a very difficult and ambiguous one.

1. The reproduction-cost hypothesis

The development of the conception of reproduction cost has gone through two main phases. The first was the elaboration of hypothetical conditions under which the imaginary reconstruction of the property was to be carried out. This was done largely by engineers and from the utility standpoint. The assumption appeared to be that reproduction cost was an independent standard of value, and not a mere check on particular abuses of original cost, and the logic was that of discovering what it

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values which accompanied overcapitalization, and on other extravagances embodied in the "original cost." In the second period it was taken up by the utilities, for the obvious reason that it gave them an increased valuation in harmony with the increase in price levels and the shrinking purchasing power of the dollar. In the third period its effect is conjectural, but it is far more likely to be injurious to the utilities than to help them. This ought to remove the support which has been responsible for the very great development the reproduction-cost doctrine has had in the past twenty-five years, and leave it much where it was before 1897.

would cost literally to reproduce the properties, rather than the logic of a search for evidence bearing on the just return to be allowed to owners who would never have any actual occasion to reproduce their properties. The second phase came with the settling of particular issues involved in this hypothesis, and the result was to eliminate many elements suggested by literal logic but having no proper relation to the task in hand, and to recast the concept in a form more suitable to its original character of a check on actual cost. It has gone far toward becoming an estimate of what original cost might reasonably have been, with allowance for subsequent changes in prices and unit costs of construction. The prices used are typically not those of a single year, but an average covering a sufficient term of years to have some claim to be considered normal.

This suggests the question: What is the logical relation of cost of reproduction to fair rates for public utilities? Three hypotheses suggest themselves: One is that it is the best index of the normal value of plants in competitive and unregulated industries, and that it is the business of regulation to give the consumer the benefits he would enjoy under competition. Another is that the plant furnishes a service which, if it were not there, the public would now have to furnish, or pay someone else for furnishing; and that the worth of this to the public is what it would cost to replace the service, either if the existing plant were destroyed, or if it should go out of service and a substitute should have to be built. The chief difference between these two variants of the second assumption lies in the implications regarding the value of the land used, where that is uniquely adapted to the service it renders. The third assumption is simply that the return of the owners should vary with changes in the price level.

The first assumption is logical, but is not the only logical assumption on which to base regulation, and therefore should not be set up as a rigid standard in an issue of confiscation, where the legislature is to be given the benefit of choice between all possible reasonable methods, and the court should prohibit only what is clearly outside the bounds of reason. This assumption, as we have seen, justifies using the cost of a modern substitute plant, not that of the identical plant now in use.

The second assumption does not correspond to the obligations the company has assumed, nor to the common sense of the situation which

would be created if the company should withdraw from service. It would then lose its rights to operate, and the value of its plant to the owners would be reduced to scrap value. To the public, the worth of the plant itself would be that of an equally efficient modern substitute; but the worth of the land, if uniquely adapted to its present use, could not be rationally determined under this hypothesis.

The third assumption, that of giving the investor an equivalent for changes in the price level, does not call for reproduction cost at all, but rather for original cost or prudent investment, multiplied by an index of price changes. There seems no reason why this should be confined to the changes in the cost of constructing this particular kind of equipment, for the investor is not going to spend his income for these things, and an index of general prices will serve his interests better. This might give a value which would be fair to the investor and, while foreign to the usual modes of approach to "fair value," cannot be said to be wholly without reason.

The issues may appear more clearly if, in the light of this general introduction, we examine some of the specific items claimed as elements of value under the reproduction-cost hypothesis. One of these claims arises in valuing land. According to the hypothesis advocated by the utilities, the company reconstructing the plant has to acquire land by condemnation, paying the present market value of surrounding lands, together with consequential damages and other costs of condemnation, bringing the total up to several times the market value of the surrounding lands. Justice Hughes rejected this claim, so far as railroads are concerned, in the Minnesota Rate Case, pointing out that the surrounding lands have their value because the railroad is there, and criticizing the whole process of imagining the road gone and then paying for the lands at the value the road's presence gives them, plus multiples for damages to values which would never exist if the road were destroyed. This, he said, is "mere conjecture" as to matters "wholly beyond the reach of any process of rational determination."[1] The court was willing, in this case, to appraise land at the market value of adjoining land, as a way of giving the companies a share in the increased values they had caused, but not, apparently, because the reproduction hypothesis logically required it.

[1] Second Minnesota Rate Case: Simpson *v.* Shepard, 230 U.S. 352, 1913.

2. Original cost plus additions

The relevance of original cost is plain: it is the thing the investor invested and for which he expects a return. Additions are, under fair conditions, simply further acts of investment by the owners. The chief objections urged against this standard have been the inclusion of wasteful expenditures and the difficulty or impossibility of discovering what the actual expenditures have been. The first is met in principle by adopting the rule of "prudent investment." And the second can be overcome with far less resort to doubtful estimating than characterizes the reproduction-cost standard. The amount, once determined or estimated, can be kept up to date by honest and systematic accounting. The estimating does not have to be repeated with every rate case.

Original cost may be difficult to discover because the records are inaccurate. When a company waters its stock, it is forced also to make a book showing of assets to balance the inflated volume of securities, and this is very likely to mean the inflation of the book cost of plant and equipment, making the figures worthless and an independent canvass necessary. Or the records may be lost, especially if the property has been transferred and the original company has gone out of business. The company has a right to a return only on property now used and useful in the public service. Abandoned property is not included, except as special dispensation may be granted to meet the equities of a special case. But some parts of the property may have disappeared, like filling poured into a quicksand, so that an inventory would not now reveal them: hence an inventory should always be supplemented by a history of the property, so far as it is to be had.

3. Intangibles

An estimate of original cost may also include intangibles. These include organization expenses, and might include the whole cost of establishing the business as a going concern. In principle, advertising employed to build up good will, beyond the amount necessary each year to maintain what has been built up, might be regarded as a capital charge: an investment in intangibles. But the slippery nature of the resulting assets argues extreme caution in any such allowance, even to the point of refusing to admit it at all.

4. Fair rate of return

On the "value" of its property the company has a right to a return such as the market affords on other businesses and other investments, with due regard for risk or stability. Commissions have often allowed 7 per cent or 8 per cent, but the courts, in considering the issue of confiscation, draw the line some 2 per cent lower than this in typical cases, always with the proviso that the company's right to its return is conditional on its being able to earn it at rates which are "reasonable to the public."

Prior deficits have no claim to present or future compensation so far as the courts are concerned, though, as Professor Ruggles points out, commissions can hardly ignore them.[1] Economic forces make it impossible, for the reward must be enough to offer some compensation for the prospect of early deficits, or capital will not be forthcoming. Professor Ruggles also thinks the way is open for legislation specifically providing, in the interest of stable rates, methods of applying the excess earnings of prosperous years to make up for shortages in bad times.

Obviously, the question whether the property is actually worth the amount of the "valuation" on which rates are based depends entirely on the rate of return allowed. With a 4 per cent return it would be worth less than the valuation, while with an 8 per cent return it would ordinarily be worth substantially more. There appears to be a tacit presumption that the rate should be such that the property will be worth the amount of the valuation, in the absence of special reasons to the contrary, but this is not definitely expressed, and in any case the courts distrust the stock-market quotations as evidences of value, because they are exposed to so many purely speculative influences. A property may be worth the same amount under a strict "valuation" and a low rate of return; a fact which makes it clear that the valuation which is taken as the base from which to calculate rates is not the same thing as the value actually allowed to the owners of the property.

For clearness in dealing with this question two quantities should be recognized: the base on which the rate of return is calculated and the amount which the property ought to be worth under fair rates. With

[1] "Rate regulation and fair return," *Journal of Political Economy*, vol. XXXII, page 543.

monopolistic industries it is possible to make these two approximately coincide, but with semi-competitive properties the actual earnings of the different units and their relative worth are governed by commercial forces which cannot be controlled or even calculated with any exactness. And, even with monopolistic utilities, elements of value which are of a transitory character or are dependent on the management are best taken care of through the rate of return, rather than through the rate base or valuation, for that is assumed to be something fairly permanent, and representing the property rather than the commercial conditions surrounding it or the efficiency with which it is handled.

Summary and criticism

The legal theory of fair value is undeniably groping and confused. The courts, as befits their function, have not laid down definite principles for the future, to which all cases must conform, but have dealt with each case as it came before them according to the circumstances surrounding it. This is natural, for the task of laying down definite methods of valuation is for legislatures and commissions, and the courts have merely to decide whether the methods used are within the bounds of reason and the proper discretion of the legislative arm of government. But the practice has not worked out wholly in accordance with this theory, for the courts have laid down general pronouncements and the commissions have been bound by them. Thus, in effect, the courts have bound the policy of regulation for the future by rules applied to the past, that is, to cases arising out of regulations applied to companies which had no previous notice or understanding as to what were the precise terms of the relationship into which they entered with the public when they undertook a public service.

Political pressures have undoubtedly urged commissions to fix rates as low as the courts permit, thus adopting the judicial rule of confiscation as their own rule of reasonableness, and wiping out the zone of reasonable discretion which ought, in theory, to exist. This has probably led the courts, in turn, to move the confiscation point up until they virtually substitute their own ideas of reasonableness for those of the commissions. There has been provocation for this, but the result is to trench on what should be the proper field of action of responsible legislative bodies, and

to impose the backward-looking judicial type of ruling on a situation requiring the forward-looking, legislative-administrative type of ruling for its proper treatment. The results have been hampering, if not stultifying.

The logic of the judicial theories — for they are not one theory — is confused by the use of the term "value" in a sense for which no definition can be found. It cannot mean value in the commercial sense, for that depends on earnings and cannot be used to determine whether the earnings are reasonable, but no other meaning is forthcoming, and the result is a constant effort on the part of the utility interests to insert commercial value in various disguises, and great embarrassment for the courts in striving to combat unreasonable efforts of this sort. The emphasis laid on original cost and reproduction cost has shifted in baffling fashion, and the resulting uncertainty is not a blessing to the utilities themselves, to say nothing of the public. Probably the greatest need of the situation is an opportunity to lay down rules for the future which will be certain.

At one time reproduction cost bade fair to become the dominant standard, but that prospect appears to have passed, along with the period of steadily rising prices in which it developed. For the future, reproduction cost will hold at least as much peril as profit for the companies, and their support of it will naturally weaken. The majority of the court, however, still officially holds to the vague "rule" of the Ames case, and there the matter rests, for the present.[1]

The Economics of Fair Value

It may now be worth while to attempt to define the principles of fair return on economic grounds, independently of legal rulings on "fair value."

The starting-point is the principle that the property of the private company is held, and its business liberties are exercised, subject to the

[1] Justice Brandeis has, in a recent minority opinion, given a table of the standards used in 363 cases, which shows that original cost has, on the whole, played a larger part than reproduction cost in past cases. A majority of the 363 cases employed some past valuation, with subsequent additions at actual cost. In this opinion (in which Justice Holmes concurs) Justice Brandeis squarely rejects Smyth *v.* Ames, stating: "The so-called rule of Smyth *v.* Ames is, in my opinion, legally and economically unsound," and holding that the thing devoted to the public use is the capital invested.

obligation to render fair service to all at reasonable charges. A second basic proposition is that the value of any property, in the basic meaning of the term, is what it will exhange for in a representative market transaction. Where the property is unique and transfers are infrequent, an estimate must be made of what someone would be willing to give for the property, as well as what the owner would be willing to forego in order to keep it. This is the basis of that hypothetical transaction between a willing buyer and a willing seller, which figures so largely in legal valuations. An impartial estimate of this sort might be spoken of as a fair value, meaning a fair estimate of the actual value. This value, for an industrial going concern, is based upon present and prospective earnings, and if these are reasonably steady and certain, the value will capitalize the earnings at a rate not far above the current rate of interest.

Value thus depends on earnings, and earnings cannot be governed by value; or rather, the value is simply what the earnings are worth. They are two dimensions of the same thing. The problem of regulation is the problem of determining what the earnings (and the corresponding value) ought to be, as distinct from what they are. It assumes that both the earnings and the corresponding value may be unreasonably large, and that both may need to be brought down to a reasonable level. Hence the power to regulate (which is our major premise) is the power to alter the value of the property, or it is nothing at all. This affords a basis for another definition of fair value that can logically be used to describe the standard to which rates ought to conform. And it contains no solution; it merely states the problem.

We are now ready to define the terms on which the discussion of this subject hinges. Fair return (and the corresponding fair value) is that return (and that corresponding value) the prospect of which furnishes sufficient incentive to capital and enterprise to secure both in adequate amounts, in fair rivalry with the unregulated field of employment. This is the basic test of reasonableness. The returns should be conditional on reasonable efficiency and economy of construction and operation, and the investor should, if possible, have a chance to increase his return by marked efficiency and assume the risk of having it reduced by marked inefficiency, but the average prospect must be enough to induce him to incur this uncertainty, as well as to invest his capital. The attractiveness of any

prospective return depends largely on its certainty, and therefore uncertainties should be reduced to the lowest point consistent with adequate incentives to efficiency. In this matter the public has a right to the benefit of whatever form of incentive will call forth adequate service at the smallest total burden to the consumer, in the long run. Whatever system of returns meets these conditions is a reasonable system, and the corresponding value of the property is a fair value.

In the process of determining fair returns, the regulating authorities may make use of an estimate of the investment, or some other capital sum, as a "rate base." This may or may not coincide with the ultimate fair value; usually not, for reasons which will soon appear. There are some elements affecting fair value which can best be allowed for through the rate of return, rather than the rate base, and some which can hardly take effect through anything but the rate of return. The rate base will naturally cover some of the most significant evidence of fair value, but not necessarily all. This rate base may be spoken of as a "valuation," if we keep in mind that it need not be intended as a complete measure of the "fair value" of the properties, and does not show what value has actually been allowed to the owners in the fixing of a schedule of rates. To find this last we must look to the earnings which the rates actually produce.

The range of possible incentives

The incentive about which difficult issues arise is the incentive to the investor. Active management is rewarded by salaries, and while it is within the province of the regulating authority to see that these are reasonable, this is usually left to the discretion of the directors. The directors, under our American system, receive their chief reward in their capacity as stockholders. The investor, then, is the real problem. For what is he to be rewarded, and to what valuable service is he to be stimulated? What is his function? It is the providing of capital funds and the placing of them in this industry, subject to whatever risk it may involve. The small stockholder is a passive absentee, but the control nevertheless vests in stockholders: large ones with enough voting power to count. They choose the directors, and in large part they choose themselves. And the directors have not only the determination of basic questions of policy, but also the choosing of the active managing officials. This means that the

stockholder (if he is intrusted with this function) should, where practicable, be exposed to losses from bad management and have a prospect of profits from good management, even if he is not himself the manager. In short, the stockholder still performs important functions of direction, and the prospect of profit or loss is still an appropriate incentive to the proper performance of them, though not a cheap one and not the only one possible.

In the matter of risk, the regulated industry is in a peculiar position, for the reason that the risk which falls on the investor is, at least in part, under the control of the public authorities. They may make the rules of regulation such that the return will be uncertain and speculative, or more certain and less speculative, or they may guarantee the return and thereby eliminate risk altogether for the investor. None of these tactics have much effect on the uncertainties inherent in the industrial processes themselves, but they alter the distribution of these uncertainties between the consumers, the investors, and the government. The effect on the investors is, however, as we have already seen, conditioned by the terms and amounts of the different types of securities by which the corporation distributes the uncertainties of its income between the holders of mortgage bonds, debentures, and preferred and common stock. Hence the government is not free to do absolutely anything it desires, unless it takes control also of the securities themselves and alters the customary terms of bond issues.

In general, the more certain the return, the cheaper can capital be secured, though this is by no means always the case if the possible losses are averaged in with the returns yielded during normal successful operation. Companies are exposed to the chance that the developing state of the arts may destroy the value of their plant, or a large part of it; and the public has so far felt that it cannot afford to assume the danger of such losses, preferring to pay the companies enough to make them willing to assume it. In practice, however, the public is at times compelled to protect the companies in order to bring about desired modernizations of the plant, since the company will prefer to keep old equipment in service if a replacement would compel them to sacrifice the whole remaining value of what they now have. Thus, in 1907 the city of Chicago secured an agreement with the surface lines to install underground

trolleys in place of their cable-car equipment, and in return allowed them to add the whole cost of the new plant to their capital account without deduction for the plant which was retired. In this case the addition to the capital account did not affect the fares, which were fixed at five cents, but it constituted part of the price which the city would have to pay if it purchased the properties during the life of the ordinance, and it was indirectly taken into account when the rise of prices following the war made the five-cent fare inadequate and caused the Illinois Public Utilities Commission to raise fares to eight cents (later reduced to seven). A company may be allowed, then, in special cases, to include the value of abandoned property in the valuation of the plant for rate-making purposes. The rules of fair value give the companies no right to this.[1] If granted at all, it should be for a limited time, the company being required to write off the value by regular amortization charges.

Thus it may prove impracticable to place upon the companies all the losses to which they have theoretically exposed themselves, and this furnishes an added reason for putting the incentive offered to the investor in such a form as to reduce his risks to a minimum. On the other hand, if all risks are removed the investor loses the incentive to take proper care to secure efficient and progressive management, as we have seen. The ideal system would be one which would eliminate risks of a purely speculative character or those due to forces over which the investor has no control, and would leave a differential return which would measure the worth of his performance. Such a system has not yet been devised.

What are the risks to which the investor is subject? They differ in different types of industry, some being unavoidable and others dependent on the policy of regulation followed. A semi-competitive industry is subject to the risk that other enterprises may cut rates or take away part of its business. But even a monopoly price does not always yield a profit. In such a case there is an added possibility that the company will not be allowed to charge the utmost price that the market would permit. While the usual standard of reasonable rates is such as to yield the company a fair return, the courts have held that the companies have not an absolute right to a normal return if this cannot be earned without

[1] See Whitten, *Valuation*, pages 190–195.

fixing rates so high as to be unreasonable to the consumer. What determines this, under existing law, is somewhat uncertain; but it is chiefly controlled by the customary rates charged by other companies for similar service, as indicating the rates from which the company in question presumably expected to secure their fair return, and which the consumers had fair reason to expect. Inability to earn a fair return at such rates, then, is one of the risks taken when a new enterprise is started, the probability depending largely on whether a potential demand already exists, or whether it will have to be built up.

Other uncertainties include changes in the costs of labor and materials. While these will, if they continue, give cause for corresponding changes in rates, this adjustment may be considerably delayed, and the company will gain or lose in the meantime. On account of this lag, periods of rising prices and costs are likely to bring reduced earnings to the companies, and vice versa. Thus the earnings of the American railroads have not yet risen to the standard set as a fair return in 1920, though rates have been fixed with the intention of producing that return. Another uncertainty which must be recognized is the uncertainty as to the regulating policy of the government itself. There is always a party favoring stricter control, and the moderate attitude of the majority in one legislative body cannot bind the next. The chief stabilizing element is the protection afforded by the courts, but even this is not absolutely predictable. In spite of these deterring elements in the situation, however, public-utility securities are regarded by the market as stable investments, selling at higher prices and lower yields than those of competitive industries in general.

Other uncertainties may be involved in the method of calculating the fair value of the property. Of the standards which figure prominently in regulation, actual investment is most certain. In its qualified form, "prudent investment," it carries some uncertainty as to what will be regarded as prudent, though this is not likely to be serious. It is so interpreted as to rule out nothing except what would be clearly indefensible on ordinary business principles. And all doubt can be removed by setting up a body of experts to pass upon expenditures before allowing them in the valuation, and so settling the question of prudence in advance. Cost of reproduction is subject to change and uncertainty of

two main sorts: changes in the cost of this kind of equipment as compared to other things, and changes in the general level of prices. This latter means, not a change in the value of this property, but a change in the length of the money yardstick in terms of which this value and all others are measured. With regard to this a dilemma arises. Reproduction cost, in such a case, though changing in number of dollars, is stable in terms of value [1] — but it is a kind of stability which people do not expect or fully understand, and hence it cannot give them the benefits which stability ought to bring. They will still issue bonds calling for a fixed number of dollars, and so long as this is done uncertainty, miscalculation, and injustice are bound to remain.

Granted that a company is to be allowed to earn a given amount, it may still make a difference in what form the allowance is made: whether embodied in the "valuation" of the property or merely in the rate of return allowed on the valuation. The valuation is harder to change and carries greater assurance of stability. Any value which the community is willing to give the company as a permanent possession may as well be included in the valuation, where it will be esteemed more highly by the investors; but any value which the community is willing to grant only provisionally or during good behavior must be kept out of the valuation and taken into account in the rate of return.

From one point of view it might be urged that any system of control which is announced beforehand is just, so far as concerns capital invested after the system was announced. If the capital accepts the terms they must be satisfactory. This is not strictly true, for the terms may be such that unforeseen contingencies will bring ruin, as did the five-cent street-car fare at the time of the war; or capital may come in on unjustly harsh terms for the sake of keeping the service going and rescuing some part of the value of the investment already made. But it is true that terms known in advance *may* be just when the same terms would be unjust if

[1] This assumes that an index number exists whose base line represents a stable amount of value. The securing of such an index number involves not merely statistical difficulties of computation, but that most abstruse question, What is the ultimate standard of value, and does any such standard exist? No one index number can fulfill the equities which this question implies, for all groups at once in a changing society, but any good index number will give a substantially stable base line, compared to the fluctuating dollar.

they were imposed without warning on investors who had been led to expect something different. For this reason it might quite possibly be just to follow some such plan as the one sketched above for all future investments, and to value the present plant on a different basis or on no basis at all save that of an agreement which will satisfy both parties. That a mixture of principles of valuation is not unheard of is attested by the fact that in a majority of rate cases the valuation is some previous valuation plus subsequent additions at cost, no matter what the basis of the previous valuation may have been.[1]

[1] See State of Missouri *ex. rel.* Southwestern Bell Telephone Co. *v.* Public Service Commission of Missouri, opinion of Justice Brandeis, 262 U.S., 276, 296, 1923.

XXX. LAKE CARGO COAL CASE [1]

Fourth United States Circuit Court of Appeals

[The opinion here presented was subsequently reversed by the United States Supreme Court, without opinion, on the ground that by reason of the compromise tariffs which went into effect on January 1, 1929, the question had become a moot one (i. e., one no longer involving any real issue between the litigants) and was no longer appropriate for judicial action.[2] The compromise established a differential of 35 cents between the two fields. Though the court felt bound to dismiss the action by reason of this technical change in the position of the parties, the issues involved are of serious economic and legal importance and must sooner or later be faced. It seems unfortunate that this case, which had been continuously before the Interstate Commerce Commission [3] and the courts since 1925, could not have been decided on its merits.

The case came to the Circuit Court on appeal from the Interstate Commerce Commission. The names of the parties represented in the original proceedings before the Commission give some conception of the tangle of interests involved.]

Respondents: Chesapeake and Ohio Ry. Co.; Hocking Valley Ry. Co.; Norfolk & Western Ry. Co; Louisville & Nashville R.R. Co.; Virginia R.R. Co.; Kanawha Central Ry. Co.; Campbell Creek Ry.; Winifrede Ry. Co.; Baltimore & Ohio R.R. Co.; New York Central R.R. Co.; Pennsylvania R.R. Co. *Intervenors:* Operators' Associations of southern West Virginia, eastern Kentucky, Tennessee and Virginia; Minnesota Railroad & Warehouse Commission; Northwest Lake-Coal Consumers; State of West Virginia; Public Service Commission of West Virginia; Attorney General of Michigan; Railroad Commission of Wisconsin; Board of Railroad Commissioners of South Dakota; International Harvester Co.; Wisconsin Steel Co.; Milwaukee Coke & Gas Co.; Elkhorn Piney Coal Mining Co.; Minnesota By-Product Coke Co.; By-Products Coke Corporation; Wisconsin Paper & Pulp Manufacturers Assn.; Semet-Solvay Co.; Virginia Coal Operators Assn.; State Corporation of Virginia; Attorney General of Tennessee; Virginia State Chamber of Commerce Railroad and Public Utilities Commission of Tennessee; Virginia State Chamber of Commerce; Railroad and Public Utilities Commission of Tennessee; Cincinnati

[1] Anchor Coal Co. *et al. v.* United States *et. al.*, 25 Federal, 2d Ser. 462, 1928.

[2] 279 U.S. _____, 1929; see also *United States Daily*, March 6, 1929, for text of opinion and brief history of the case.

[3] 101 I.C.C. 513, 1925; 126 I.C.C. 309, 1927; 139 I.C.C. 367, 1928.

Chamber of Commerce; St. Paul Assn. of Public and Business Affairs; Commercial Club of Grand Forks, N. Dak.; Farmers Grain Dealers Assn. of North Dakota; Calumet & Hecla Consolidated Copper Co.; Illinois Commerce Commission; Chamber of Commerce for Aberdeen, S. Dak.; Detroit Board of Commerce; Fordson Coal Co.; Ford Motor Co.; Minneapolis Traffic Assn.; Northwestern Retail Coal Dealers Assn.; City of Detroit, Mich.; Michigan Manufacturers Assn.; Twin City Coal Exchange; Northwestern Minnesota Shippers Assn.; Lexington, Ky., Chamber of Commerce; Railroad Commission of Kentucky.

Protestants: Pittsburgh Operators' Lake Rate Committee and individual members thereof; Operators in Hocking, Shawnee, Crooksville, Ohio No. 8, and Cambridge (Ohio) districts; W. J. Rainey, Inc.; Fayette-Greene Coal Producers Assn.; Attorney General of Ohio; Public Service Commission of Pennsylvania; Wheeling and Lake Erie Ry. Co.; Chamber of Commerce of Pittsburgh; Illinois Coal Traffic Bureau; Central Pennyslvania Coal Producers Assn.; District 12, United Mine Workers of America.

John J. Parker, Circuit Judge: This suit was brought by coal producers engaged in mining and shipping coal from southern West Virginia, western Virginia, eastern Tennessee, and eastern Kentucky, against the United States and a number of railroad companies engaged in the transportation of coal from that territory to ports on Lake Erie. Its purpose is to enjoin the enforcement of an order of the Interstate Commerce Commission, entered February 21, 1928, which directs that the carriers cancel certain rate schedules which they have filed, reducing by 20 cents per ton the freight rate on "lake cargo" coal from the territory named to the lake ports.

The controversy before us, as already indicated, has relation to "lake cargo" coal, a term used to designate coal shipped to ports of the Great Lakes for trans-shipment by vessel to various lake and river ports in the United States and Canada, whence it is distributed by rail. The rates on such coal are in the nature of proportional rates to the lake ports for part of a through movement to across-lake destinations. The coal is transported across the lakes only during the months from April to November; and, as this movement occurs during the summer months, when the coal trade is slack, it is of great importance to the mine operators, since it enables them to keep their mines in operation during the dull season. All of the lake cargo coals are more or less competitive, particularly for steam and domestic purposes; and those produced in the Pittsburgh district are highly competitive with those produced in the territory of

complainants, so much so that a difference in price of a few cents will determine a sale. The importance of the trade to the producers may be judged from the fact that in 1925 the volume of the across-lake movement was 26,333,000 tons. In 1923 it was 29,840,000 tons. Its importance to complainants is shown by the fact that in 1925 they furnished practically 82 per cent of this tonnage and that in 1924 it constituted 12.6 per cent of their total production.

As ability to compete in the sale of lake cargo coal depends in large measure upon the freight rate applied to shipments to the Lake Erie ports, there has been a long history of controversy over these rates. This controversy has been carried on by the operators in the coal producing region around Pittsburgh, Pa., which we shall refer to generally as the northern field, and by those operating in territory of complainants, which we shall refer to as the southern field. The haul from the southern field to the lake ports is considerably longer than that from the northern field, and the rate has always been higher than from the northern field. The difference in rate, however, has never been so great as the difference in distance, due in part to the fact that the carriers from the southern field, being especially well equipped for carrying coal, could transport it at a lower cost, distance considered, than those serving the northern field, and in part to the necessity of fixing a low rate if they were to get any coal to haul. A rate based on anything like a mileage basis would have excluded the southern coal from the lake cargo market. These rates were fixed originally under competitive conditions, and, until the supervisory power of the Interstate Commerce Commission was invoked, the differential between them was very small, only 9 cents per ton between the Pittsburgh and Kanawha districts; the rate being 88 cents per ton from Pittsburgh and 97 cents from Kanawha.

In 1912, for the first time, the Commission took a hand in the fixing of the rates. In that year it denied the petition of the Chesapeake & Ohio that it be allowed to increase its rates from the southern field, and reduced by 10 cents the rates from the northern field. The effect of this was to spread the differential from 9 to 19 cents as between the two fields. In subsequent rate adjustments the differential was further increased to 25 cents, which was preserved in the various changes by which the rates were increased until those from the Pittsburgh district were $1.66 per ton and

those from the Kanawha district were $1.91 per ton. This was the differential between the rates from the northern and southern fields at the time of the passage of the Transportation Act of 1920, and it was continued as the differential until the order of the Commission of May 9, 1927, which increased it to 45 cents per ton. If the proposed rates by the carriers from the southern field are allowed to go into effect, the reduction of 20 cents per ton will reduce the differential to 25 cents again. The question before us, therefore, is whether we shall enjoin the Commission from preventing a reduction of rates the effect of which will be to restore the old differential which the Commission itself established.

The orders of the Commission, by which the differential between the northern and southern fields was increased from 25 to 45 cents, and by which the southern carriers were ordered to cancel schedules which would not only reduce rates, but would also restore the old differential of 25 cents, afford an interesting study, and present a question fraught, we think, with the gravest consequences to the future of the country, if the power asserted by the Commission can be sustained. To understand, however, exactly what the power is which the Commission has assumed to exercise, it is necessary that we go behind its merely formal conclusions that rates are reasonable or unreasonable, and ascertain exactly what it is that it has done, and upon what facts and upon the application of what principles it has arrived at its conclusions. This it is our duty to do. And, in the performance of this duty, it is necessary that we analyze not only the report of the Commission accompanying the order whose enforcement we are asked to enjoin, but also the reports made in 1925 and 1927 with regard to the reductions of rates from the northern field, in the latter of which the differential between the two fields was increased from 25 to 45 cents.

In the case from the northern field, the first decision in which was rendered July 16, 1925, coal producers of the northern field had filed petitions alleging that the rates charged them on lake cargo coal were unjust and unreasonable per se, relatively unreasonable, and unduly prejudicial as compared with rates on this traffic from all other districts in the Appalachian region, and that the rates from other districts were unduly preferential, the other districts referred to being particularly the districts which we have referred to as the southern field. An extended

hearing was had and the petitions were denied. The Commission summed up its conclusion in the last paragraph of its report as follows:

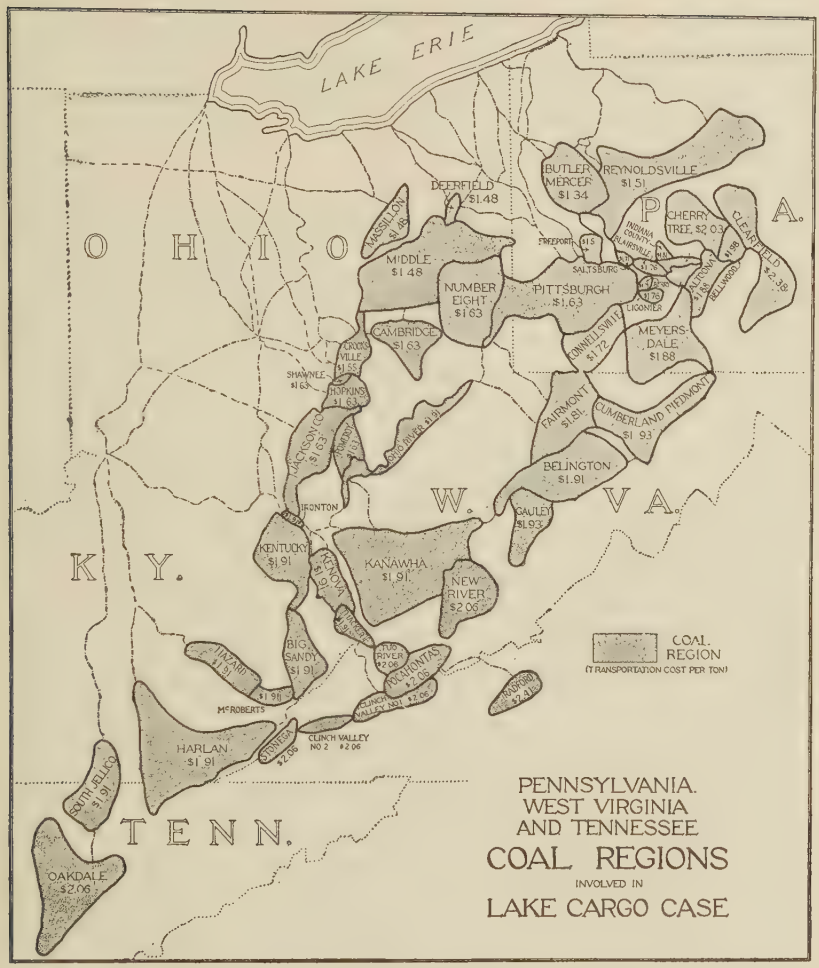
> After full consideration and upon the entire record, we find that the present rates on lake cargo coal from the Pittsburgh, Ohio No. 8, Cambridge, and Fairmount districts do not exceed the maximum of reasonableness and are just and reasonable rates, and that the rates assailed on lake cargo coal from these and other districts are not unduly prejudicial, unduly preferential, or otherwise unlawful.

An examination of the report will show that the Commission compared the ton mile earnings of the carriers from the northern and southern fields; compared the lake cargo rates with the local rates on coal and with the rates on commercial coal; compared various differentials with the differentials involved and with the increased haul for which the differentials were imposed; considered the movement of ore in the cars returning to the northern field; considered transportation from the various districts, computed according to various theories; compared lake cargo rates charged by carriers from southern fields with rates charged by them on coal to tidewater; considered the rate relationship of the northern and southern fields and how their competition was affected by the rates; and fully discussed the relation of these various matters to the rates involved.

The Commission proceeded to refuse to prescribe minimum rates for the carriers from the southern field as follows:

> No rate war is imminent. Allegations in the Ohio complaints that rates from the southern districts were unduly low were withdrawn at the hearing. Regulatory commissions of the states where most of this coal is consumed contend vigorously and earnestly that grave public injury would be caused by a widening of these differentials, and that the public interest would be promoted by narrowing them. In no proceeding before us have consumers and their representatives insisted more earnestly and forcibly than they have here that their interests be not submerged in the struggle between competing coal districts.
>
> The differentials here are not only the result of years of experiment, but in fact are those prescribed by us. They have not been shown to result in undue prejudice to the complainants.

After this decision was rendered the petitioners from the northern field asked for a rehearing, which was granted, and on May 9, 1927, an order was entered, concurred in by a majority of the Commission, reducing the



THE EFFECTS OF THE ORDER OF THE INTERSTATE COMMERCE COMMISSION

Transportation rates from the various regions after the order of May 9, 1927.

rates on lake cargo coal from the northern field 20 cents per ton, and thereby widening the differential between the northern and southern field to 45 cents. After calling attention to the fact that further study had convinced the Commission that lake cargo coal was entitled to lower rates than commercial coal, the report proceeds:

Upon the more complete record now before us, we are of the opinion that the rates on the same class of traffic from other districts in the same region shipping a large amount of lake cargo coal are entitled to more weight in passing upon the reasonableness of the rates assailed than any other rate comparisons, although we take into consideration that such rates from the southern districts may not be reasonable maxima in all instances.

The record on further hearing differs materially from the original record in respect to the trend of the movement of lake cargo coal from the various districts. In our original report we pointed out that in 1923 Ohio No. 8 shipped more lake cargo coal than all the Kentucky districts combined, but on further hearing it is shown that in 1924 Ohio No. 8 shipped 663,000 tons less than Kentucky, and in 1925 Kentucky shipped 5,291,000 tons more than Ohio No. 8, or about four times as much as the latter. The tonnage shipped from the Pittsburgh district has continued to fall off since the original hearings but at a much more rapid rate, that for 1924 being less than one-half of 1923 and for 1925 less than one-third of 1923. In our original report we stated that of the total lake cargo tonnage of high-volatile coal in 1923, Pennsylvania and Ohio districts taking rates of $1.66 or less shipped 60.4 per cent, while all of West Virginia and Kentucky shipped practically all of the remaining 82 per cent. This marked change in conditions is evidently due principally to the higher cost of producing and marketing coal in the Ohio and Pennsylvania districts. The higher cost is no doubt due to various causes, but it is apparent that the freight rates contribute to the cost of producing and marketing coal in the complaining districts, and as stated, those from the Pittsburgh and Ohio districts are relatively much higher than those from the southern districts.

At the time of the original hearings the coal-mining industry in Ohio and Pennsylvania was in a comparatively prosperous condition. Since then 12,000 to 15,000 miners have left the Ohio mines, there has been a large increase in the number of vacant houses in the mining communities, and merchants have large amounts of unpaid accounts upon their books. In the Pittsburgh district miners have been given help in getting transportation to the southern fields; from 1921 to 1925 the number of employees engaged in coal mining decreased 20 per cent, while employees in other industries increased 40 per cent, and the coal business is in a depressed condition. It does not appear that all this is due solely to the rate adjustment, but if that adjustment is improper it is our duty to correct it so far as possible, and we must give consideration to the conditions existing in the industry under the provisions of the Hoch-Smith Resolution.[1]

The reduced rates from the northern field were to become effective August 10, 1927. After the decision of the Commission fixing them was

[1] See page 295.

announced, the defendant carriers serving the southern field filed tariff schedules under the statute reducing their rates on lake cargo coal from the southern field to 20 cents per ton and thereby restoring the old differential. The Commission at once suspended the operation of the schedules upon protests from certain of the operators in the northern field and ordered a hearing on the rates embraced therein. Upon this hearing certain of the complainants here intervened and opposed the cancellation of the schedules. On February 21, 1928, the Commission entered the order complained of directing that the schedules be canceled, and accompanying the order filed a report in which it set forth the grounds upon which it had proceeded.

After adverting to the contention of the southern carriers that it was their right as well as their duty to stockholders and patrons to initiate rates with a view to meeting competitive conditions, and that in publishing rates they were exercising a managerial function which belonged to them, and to the contention of the southern operators that the reduced rates were necessary to insure to them their fair share of the lake cargo market, the Commission stated that it was not within its power to adjust rates to allow competing shippers to market their products and that although rates found lawful might have that effect, they must be based fundamentally upon conditions surrounding the transportation. It then considered the shift in tonnage of lake cargo coal to the southern field, and said that this shift appeared to have been due in large measure to lockouts, miners' strikes, and to higher cost of producing coal in the northern than in the southern field, and that these conditions still prevailed. It stated the position of the southern carriers with respect to the proposed rates as follows:

> The position of the southern respondents is that the proposed rates, although admittedly low and hence not reasonable maximum rates, are not unreasonably low per se or less than reasonable minimum rates, and would not cast a burden on other traffic. In support of that position the respondents rely upon comparisons of the earnings under the proposed rates with either the average revenues or expenses on all coal or on all freight traffic on their respective lines and upon operating and cost statistics, and, upon comparisons with divisions of certain rates on coal, with rates and earnings on coal from some of the same and other coal-producing districts to various destinations, and with the rates and earnings on other commodities.

After analyzing these contentions of the southern carriers, and comparing the proposed rates with earnings on other traffic, in the course of which it was shown that in this territory in 1926 the coal traffic constituted 82 per cent of the total tonnage of the Chesapeake & Ohio, 80 per cent of that of the Hocking Valley, 88.72 per cent of that of the Norfolk & Western, and 59.5 per cent of that of the Louisville & Nashville, the Commission did not find that the rates proposed were unreasonably low per se or that they would cast a burden upon other traffic, but came to what it evidently considered the controlling factor in the situation in the following language:

> The rates on coal with which the proposed rates have heretofore been compared are not parts of the lake cargo coal-rate structure, but of other and different rate structures, and hence in the nature of collateral comparisons. The rates on lake cargo coal from the southern and other districts in the Appalachian region to Lake Erie ports constitute a definitely interrelated rate structure in which the rates on this traffic are, and for many years have been, made independently of those in other coal-rate structures generally. As demonstrating that interrelationship it may be noted that counsel for the Norfolk & Western and Virginian stated at the hearing that the reduced rates here proposed by those respondents would be withdrawn if the former higher rates in effect prior to August 10, 1927, from the northern districts to Lake Erie ports were restored. It remains to be determined whether the proposed rates are just and reasonable measured by other rates on like traffic in the same rate structure.

The Commission then laid down the principle upon which its denial of the proposed rate reduction was based as follows:

> Little or no effort was made by the southern respondents to prove that the proposed rates are just and reasonable, measured by the rates on like traffic from the Ohio No. 8, Cambridge, and Pittsburgh districts. Their position, in substance, is that in the absence of undue prejudice and preference the only limitation on the measure of the proposed rates is that they shall not be less than minimum reasonable rates per se or be so low as to cast a burden on other traffic. That construction of the law, as we view it, is too narrow. Section 1 of the Interstate Commerce Act declares that rates shall be just and reasonable, and prohibits every unjust and unreasonable rate. In other words, it requires that rates shall not only be reasonable per se, but just and reasonable in their relation to other rates on like traffic in the same territory that afford a proper standard of comparison, and applies to instances in which rates are below that standard, distance and transportation conditions considered, no less than to those in which the rates exceed that standard. Prior to the enactment of the

Transportation Act, 1920, violations of Section 1 could be corrected only by the prescription of maximum reasonable rates. Under the Interstate Commerce Act as amended by the Transportation Act of 1920, we are empowered, whenever, after full hearing, we find that any rate is or will be unjust or unreasonable, or otherwise in violation of any of the provisions of that Act, to determine and prescribe what will be the just and reasonable rate to be thereafter observed, or the maximum or minimum, or the maximum and minimum, to be charged. The provisions of Section 1 are as broad in scope as the power conferred for its administration. . . .

The rates on lake cargo coal from these districts are, as previously explained, parts of a definitely interrelated rate structure on like traffic. The rates from the Ohio No. 8, Cambridge, and Pittsburgh districts were prescribed by us as maximum reasonable rates. There is no contention that those rates exceed that limit. They afford, therefore, appropriate and fair standards for determining whether the proposed rates are just and reasonable, distance and transportation conditions considered. . . .

We have frequently said that distance alone is only one of the elements which must be considered in determining upon a lawful rate adjustment; and in competitive adjustments the carriers may disregard distance even in substantial degree, so long as the competitor whose geographical location is largely disregarded is not injured thereby, but where it is made to appear in an interrelated adjustment such as that with which we are here dealing that such a competitor is injured and is complaining, we believe that a proper interpretation of the law which we administer demands a remedy.

The Commission pointed out that, under the Hoch-Smith Resolution, it had adjusted the rates from the Appalachian coal districts and had grouped the carriers as required by the Act; that the reduction to the northern field was authorized by the proviso of that paragraph; but that the reduction to the southern field would create no new traffic and would reduce the aggregate income of the carriers. It held, further, that the carriers had not shown justification for the rates under that, saying:

To accord to a carrier the right to transport a substantial portion of its tonnage at rates upon the obviously low level here proposed, while giving no relief to the agricultural industry, including livestock, which Congress has declared to be in a depressed condition and entitled to the lowest possible lawful rates consistent with the maintenance of an adequate transportation system, is counter to that mandate. The Hoch-Smith Resolution is not directed to the carriers; it is directed to us. Carriers who seek our approval of rate proposals will be expected to show that a finding of justification can be made consistently with the policies outlined for us in the resolution. This had not been done in

this proceeding. . . . We find that the proposed rates have not been justified. We shall require the cancellation of the suspended schedules and discontinue this proceeding.

It is perfectly evident from a study of the foregoing reports of the Commission that, in reducing the rates from the northern field, and in directing the cancellation of the reduction from the southern field, the Commission was primarily concerned, not in fixing rates, but in fixing the differential which was to prevail between the two fields, and that, in expanding the differential to 45 cents and in refusing to allow the old differential of 25 cents to be restored, the Commission based its action upon the shift of tonnage from the northern to the southern field and the industrial conditions resulting therefrom. That this was the basis of the Commission's action appears not only from the language of the reports which we have quoted, but also from an analysis of the existing situation and the necessary effect of the order. The rates proposed were not so low as to burden other traffic or prevent the carriers realizing a reasonable return on invested capital or value, and the Commission did not order their cancellation on any such ground. Even after the reduction they would be 25 cents higher than the rates from the northern field; consequently, considered independently of such matters as the cost of production of coal, they could not have interfered with the traffic of roads having a rate 25 cents per ton lower. The only way in which they could be said to interfere with the traffic from the northern field, would be that on account of the difference in industrial conditions in the two fields, the southern field would be able to undersell and get the business even though paying a rate 25 cents per ton higher, whereas it would not be able to undersell if the differential were made higher than that. But it must be manifest that increasing the differential to meet such a situation is not regulation of rates, but regulation of industrial conditions under the guise of regulating rates.

It is said that the increase of the differential resulting from the lowering of the rates from the northern field and the cancellation of the reduced rates from the southern field is justified by the longer haul from the southern field; but rates are not fixed upon a mileage basis, and the rate for the longer haul, if higher than the rates of competing roads or rates from competing communities, cannot be of consequence to anyone except the carriers concerned, unless they result in such impairment of earnings, as

to make the rates unreasonably low per se; that is, so low as not to yield a reasonable return upon the investment of the carrier or throw an undue burden upon other traffic. The Commission recognizes that length of haul is not in itself a sufficient reason for increasing the differential or refusing a reduction which would leave the rate higher than rates from competing communities, and comes back to the proposition that the change is justified because of conditions in such communities.

Much has been said as to the binding effect of the order entered by the Commission, but the law with regard thereto is well settled. If the determination of the Commission finds substantial support in the evidence, the court will not weigh the evidence, nor consider the wisdom of the Commission's action, which within the scope of its jurisdiction, is conclusive, unless there be some irregularity in the proceeding or some error in the application of rules of law. If, however, in making the order complained of, the Commission has exceeded its powers, or has proceeded upon an erroneous theory of law, or if its action is so manifestly arbitrary and unreasonable as virtually to transcend the authority conferred upon it, the courts are not bound by its action.

We think that the enforcement of the order here complained of should be enjoined: (1) because the Commission exceeded its powers, in that its action was based, in part, at least, upon industrial conditions, and was essentially an effort to equalize industrial conditions or offset economic advantages through adjustment of rates; (2) because it proceeded upon an erroneous theory of law, in holding that the burden was upon the southern carriers to justify a reduction of rates by a comparison of the reduced rates with lower maximum rates prescribed for a competing field; and (3) because it proceeded upon an erroneous theory of law, in holding that the burden was upon the carriers here to justify the proposed reduction of rates under section 15*a* of the Interstate Commerce Act, as added by Section 422 of the Transportation Act of 1920 and the Hoch-Smith Resolution. We shall consider these in order.

If we are correct in our analysis of the reports of the Commission, there can be no doubt that it exceeded its powers. Of course, since the passage of the Transportation Act of 1920, the Commission has the right to prescribe minimum rates, and we agree with the Commission that a construction of the law is too narrow which limits its right to prescribe such rates

to cases where the rates proposed are unreasonable per se, or are so low as to cast a burden on other traffic. It has the right to prescribe minimum rates also to prevent ruinous rate wars and to guarantee reasonable earnings, not only to the carriers affected, but also to competing carriers, who may labor under a higher cost of doing business. And where the Commission fixes a rate or prescribes a minimum in the exercise of the powers conferred upon it, the courts will not interfere with its action, however much they may disagree with its reasoning. The Commission does not have the right, however, to regulate industrial conditions under the guise of regulating rates. And in a case like this, where there is no rate war, where there is no finding that the rates condemned will deprive the carriers of a fair return, and where they cannot injure competing carriers or carriers from a competing locality because they are actually higher than the maximum rates which such carriers may charge, the Commission does not have the right under the law to prohibit the reduction because of a shift in traffic which has occurred from the locality having the lower to the locality having the higher rate.

For the Commission to fix rates upon such a basis is for it to assume the task of equalizing industrial conditions through rate adjustments. We do not think that Congress could give such power to the Commission. We are perfectly certain that it has not attempted to do so.

There is nothing in the Transportation Act which justifies the assumption of the power to raise and lower rates or to prevent rates being lowered in order that industries may be put upon a competing basis or that those near a market may enjoy the advantage of their location. That Act does provide that in the exercise of its power to prescribe just and reasonable rates the Commission shall establish them so that carriers as a whole or in rate groups will earn a fair return upon the value of their property. (Section 15*a*.) And in the exercise of this power the Commission can undoubtedly establish minimum rates higher than required for a fair return to the carriers more favorably situated in order that a fair return may be realized by competing carriers less favorably situated and that an efficient transportation system may be thus afforded to the sections served. But we are satisfied that it was never intended by the Act that, in exercising this power, the Commission should consider the loss of business of one community due to industrial conditions and attempt to restore it by

increasing the differential in the freight rates between that community and others which compete with it.

Coming to the second ground of invalidity, which is that the Commission proceeded upon an erroneous theory of law in holding that the burden was upon the southern carriers to justify the proposed reduction by comparison of the proposed rates with lower maximum rates from another field, we think there was error. Carriers still have the right to initiate rates. The Commission, it is true, upon the filing of a new rate, has the right to suspend it and enter upon a hearing as to its lawfulness. But upon such hearing the burden is upon the carrier to justify an increased rate, not to justify a rate reduction.

There is all of the difference imaginable between a proposition to raise and one to lower rates. In the former case, the natural presumption is that the carrier will charge what the traffic will bear, and before he is allowed to increase his charges he should show that the increase proposed is justified by cost of operation or other valid criterion. Furthermore, the matters justifying the increase are matters peculiarly within the knowledge of the carrier proposing it. In the case of a reduction of rates, however, the self-interest of the carrier can ordinarily be depended on to guard against too great a reduction; and the reasons for denying the reduction, such as the effect on other carriers, are matters which are not peculiarly within the knowledge of the carrier offering the reduction, and could be better shown by the carriers injuriously affected. Where carriers are willing to reduce rates and thus give the public the benefit of a lower cost of transportation, we think that the burden should be upon those who oppose the reduction to show that it should not be granted, and not upon those who offer it to show that it should be. A reduction of rates is ordinarily beneficial to the public, and before it is denied the contrary should be made to appear. Here it is shown that the carriers voluntarily offered a reduction of rates which would give the public cheaper coal, and we think that the Commission acted upon an erroneous legal theory in requiring that the rates be rescinded, not on the ground that they were shown to be too low, but because they had not been justified by the carriers proposing them.

But it appears that not only did the Commission place upon the carriers the burden of justifying the reduction in rates, but also what we think was

the absurd and impossible burden of justifying them by comparison with a lower maximum rate prescribed for carriers from a competing community.

The Commission, in fixing rates, undoubtedly has the power to require that they be high enough to give the carrier a fair return, that they be not so low as to burden other traffic, and that they do not interfere with the earnings of competing carriers, as by being made lower than the rates upon which such carriers can earn a fair return; but there is neither reason nor law for the proposition that rates may be condemned as too low because of their relation to maximum rates from a competing community, where they are actually higher than such rates.

We feel sure that no proper interpretation of the Act requires that before a carrier can reduce a particular rate to the public it must show how the net income of all the carriers in that part of the United States will be affected by the reduction. The Act as construed gives the Commission power to fix a minimum rate to prevent rate wars, and to prevent the burdening of other traffic or the impairment of earnings either of the road itself or competing roads; but certainly this was as far as Congress intended to go. The railroads are still private property and are subject to private management. When one of them proposes a reduction of rates which is not shown to unduly impair its own earnings, burden other traffic, or injure its competitors, it is nothing short of absurd to say that it must justify the reduction with reference to its effect on the net income of all the carriers in the eastern part of the United States.

To conclude, therefore, we think that in entering the order complained of the Commission exceeded its powers and proceeded upon erroneous theories of law. We think that its action was essentially an effort to equalize industrial conditions or to offset economic advantages by rate adjustments, not warranted by anything contained in the Transportation Act of 1920 or in the Hoch-Smith Resolution. We think that it erred, as a matter of law, in holding that the burden was upon carriers, who had filed schedules reducing rates, to show that the rates as reduced were not unreasonably low as compared with lower maximum rates prescribed for shipments from another field, and in holding that the schedules should be canceled for failure of the carriers to sustain this burden. We think that there was error of law also in the holding that the burden was upon the

carriers proposing a reduction of rates to justify the reduction under Section 15*a* of the Interstate Commerce Act, as added by the Transportation Act of 1920 or the Hoch-Smith Resolution. For these reasons we think that the order complained of is void; and, as it is affirmative in its nature, commanding the cancellation of rate schedules which will become effective if not canceled, and as complainants will be injured if its enforcement is not enjoined, we have no doubt of the power of the court to grant the injunction prayed. The injunction prayed will accordingly be granted.

Injunction granted.

XXXI. RAILROAD CONSOLIDATION: THE VAN SWERINGEN DECISION[1]

By George Soule
Director, The Labor Bureau, Inc.

There is nothing new about railroad unification. When railroads were first built the trackage owned by separate companies was short, the capital small in comparison with systems as we find them today. Gradually, as in most other basic industries, larger operating units grew up. They resulted from cutthroat competition, buying-in of defeated rivals, stock purchases, leases, mergers, holding companies, traffic agreements. The motives for these deals were various. Sometimes they arose from a genuine desire to offer better and cheaper service to the public. More often, however, such motives if they existed were subordinated to shrewd plans for making fortunes out of financial manipulation, or desire to pile up monopoly gains from railroad operation, or ambition to strengthen one property at the expense of its competitors.

If you look back into the history of railroad consolidation you will find the associations, both salutary and sinister, of names like Drew, Vanderbilt, Hill, Gould, Harriman. You will find the Northern Securities Case. You will find voluminous argument pro and contra combination. No doubt the old order of small and disparate railroads was doomed to give way before the new; no doubt the new brought many advantages. But it also brought abuses which led to public regulation, to a popular fear of mergers, and to legal restraints on them. It left an illogical array of strong and weak roads, of big systems and little ones, and a confused rate

[1] Reprinted by permission from the *New Republic*, March 31, 1926. In the Nickel Plate Unification Case, 105 I.C C. 425, 1926, the Commission disapproved the application of the Van Sweringen interests for permission to acquire control of the Chesapeake & Ohio, the Hocking Valley, the Erie, the Pere Marquette and the Nickel Plate railways on the ground that, though the merger would be in the public interest from a transportation standpoint, the terms offered were not just and reasonable. The power of the Commission to consider the interests of minority stockholders has since been upheld in Cleveland, Cincinnati, Chicago & St. Louis Ry. *v.* Jackson, 22 Fed. 2d Ser. 509, 1927. — The Editor.

structure. It is well to remember these things when discussing consolidation now.

Consolidation sanctioned by law

The decontrol of railroads after the war and the discussion leading up to the Transportation Act of 1920 brought a new kind of interest in unification. There had been a good deal of sentiment in favor of continuing Federal operation, some sentiment in favor of government ownership. It was not difficult to rout this sentiment for the time being by displaying the usual bogy man and pointing to the huge deficit arising during the period of Federal control (for which, of course, Federal control was not responsible, but other things such as shifting price and wage levels, and war requirements). But the men who really knew railroads knew that when the carriers were taken over by the government they were on the verge of collapse, and felt that their weaknesses would again under private operation lead to trouble which might in the end force government ownership unless something drastic were done to strengthen them financially and enable them to render better service without exorbitant or uneconomic rate increases. Thus arose the plan of the Transportation Act, an important feature of which was consolidation of all railroads into some fifteen or twenty great systems.

Consolidation was expected to produce results of public advantage. It was expected, through creation of larger units for the use of cars, locomotives, shops, yards, terminals, administrative forces and routes, to bring about economics of operation. It was hoped, by joining roads whose return on their investment was inadequate with roads which made more than enough, to improve the credit position of the weaker roads without advances in rates, and even to reduce rates. It was expected, by creating systems substantially equal in nature of traffic, territory served and rate of return, to simplify the problem of regulation and facilitate the development of a logical rate structure. This result was to be achieved without substantially altering existing traffic routes and without abandoning competition among systems serving important cities and regions.

In pursuance of these ends the Interstate Commerce Commission was directed to prepare a tentative general plan for consolidation, to hold hearings on it, to adopt a final — but modifiable — plan, and then to

grant permission to roads wishing to consolidate, using this plan as a guide. After an exhaustive study by Professor William Z. Ripley a tentative plan was adopted. Hearings held on it developed so many conflicting objections that no final plan has been drawn. The Commission is now seeking the permission of Congress to abandon the project, and merely to pass on proposed consolidations as they arise, with possible stipulated modifications. Of course the same general principles as before, the same set of aims, would be supposed to rule. Though the hearings did not lead to the expected result, they were of great value in developing large quantities of data and many points of view which will help in future consideration of the matter.

The Van Sweringen plan

Here the subject stood when the Van Sweringen consolidation came before the Commission. The stage had been so set that the public might have expected the railroad protagonists to appear upon it armed with exhaustive studies showing how their proposal would achieve the purpose of the Transportation Act. One would have expected the Van Sweringens to have spent months in their study with railroad experts choosing just the roads that should be merged, before they began operations.

How different was the picture revealed! Two real-estate men had bought suburban property in Cleveland. To develop it they needed a trolley to the center of town and a terminus there. Seeking for a right of way for their trolley line they came upon the tracks of the old Nickel Plate, owned by the New York Central, which had bought it to suppress competition and under the law had to get rid of it. A deal was made whereby the Van Sweringens bought the road with a minimum of cash and a maximum of borrowed money, which they repaid by floating a company under their control. So it went on, through the development of their mid-city property into a union railroad terminal, the purchase of the Clover Leaf from its receiver at a low price and its resale to the Nickel Plate at a handsome profit, the acquisition of the Erie and of the Pere Marquette, and finally the purchase of a controlling interest in the Chesapeake and Ohio and the Hocking Valley, with a view of selling them out at less than their value to the other and financially weaker roads in which

the Van Sweringens had a larger interest. Every step was a shrewd trade in which the promoters made money after the fashion of realtors. It was charged at the hearings that some of these steps were achieved by illegitimate methods. In the process the promoters are said to have picked up something like $80,000,000. They were not primarily interested in consolidating railroads. They were interested in buying and selling, manipulating and financing any properties which they found lying around loose.

To complete the deal, it became necessary to get the permission of the Interstate Commerce Commission. Then, and only then, were the experts brought in with their study of economies, routes, better service. If you examine the briefs in the case you will find less than half of their pages concern the public advantages of the consolidation. You will find that these pages seem superficial and fragmentary. The majority of the Commission itself in its decision devotes almost as much space to this aspect of the matter as the brief of the applicants.

Although four of the Commissioners decided that the merger, from the transportation aspect, would be in the public interest, there was by no means a unanimous opinion on the subject. Chairman Eastman wrote that he did not believe the case was proved. The minority stockholders of the Chesapeake and Ohio punctured it in detail. President Loree of the Delaware and Hudson, who has a consolidation scheme of his own, bitterly opposes the Van Sweringen plan.

The general layout of the proposed merger is as follows: The new Nickel Plate is principally a trunk line from Buffalo to Chicago, St. Louis and other midwestern points. The Erie is chiefly a trunk line from New York to Chicago. Joined together they make a through trunk line, paralleling each other in parts. The Pere Marquette is a feeder road fanning out over Michigan. The Chesapeake and Ohio, with its subsidiary the Hocking Valley, is principally a soft-coal road based on West Virginia and Kentucky, extending to Hampton Roads in the east and Cincinnati and Chicago in the west. The Erie and the Nickel Plate have a comparatively weak financial structure and earning power. The Pere Marquette has been moderately well off. The Chesapeake and Ohio and the Hocking Valley have been very prosperous. Diversion of their profits to the capital of the rest of the system would have given it greater value. The whole is

supposed to form a fourth trunk line system, competing on fairly even terms with the other three great trunks, to be somewhat enlarged in the consolidation projects — the Pennsylvania, the New York Central and the Baltimore and Ohio.

The projected system cuts square across the two principal comprehensive consolidation plans that have been prepared. The Oldham plan, drawn up by a Boston banker, placed the Nickel Plate, the Erie and the Pere Marquette with the Wabash on the west and the Lackawanna, the Lehigh Valley, and the Delaware and Hudson on the east. It allotted the Chesapeake and Ohio to the Baltimore and Ohio and other roads to make an enlarged B. and O. system. The tentative plan of the Commission placed the Erie with the Lackawanna, the Delaware and Hudson, the Wabash east of the Mississippi and smaller roads. It placed the Nickel Plate with the Lehigh Valley and smaller roads. It grouped the Pere Marquette with other Michigan roads to be tapped by all trunk line systems crossing the territory. It put the Chesapeake and Ohio with the Virginian as a specialized soft-coal system.

The Commission approved the Van Sweringen proposal on the ground that it would have greater strength than the new systems of the tentative plan in competing with the Pennsylvania, the Baltimore and Ohio and the New York Central. But it did not state how this decision would bias the future layout for eastern trunk line consolidation. Nor did it answer Professor Ripley's judgment that coal-carrying is such a specialized job that the soft-coal roads had better be left undisturbed as sources of supply for all connecting systems.

The operating economies claimed for the new system by the Van Sweringens amounted to $6,000,000 annually — which is not more than 2 per cent on its present operating revenue. That is the measure of the total possible reduction of rates. If not applied to reduction of rates it would raise the return on book investment from a little over 4.8 per cent to a little under 5.4 per cent. The opposition argued that some of these economies were not feasible and some would be made at the expense of competing systems.

Approval of the proposal as an improvement in transportation could therefore rest for the most part only on a general faith in larger systems, regardless of the motives which led to the merger.

IV

Is this faith fully justified? Chairman Eastman and other competent critics believe not. Let us summarize briefly some of their comments.

Operating economies

The greatest chance for operating economy is in joint use of terminals by all roads entering a city or port. Consolidation plans usually contemplate the continuance of terminal competition among the enlarged systems. Terminal unification, as the Port of New York Authority has pointed out in its own case, cannot be obtained by competitive consolidation. It can be obtained without it, and has been in several cities. Pooling of facilities, such as cars, can likewise be achieved by coöperation rather than consolidation. And after a certain size is passed, the administrative and executive job may be so large as to conduce to less efficiency rather than more.

Strengthening weak roads

The pleas of the consolidationists is that many weak roads making less than a "fair return," cannot give adequate service and if not strengthened by consolidation may go into bankruptcy and be forced to discontinue operation unless the government takes them over. Though the situation has recently been improving, 70 railroad companies operating 56,464 miles of road averaged less than 3 per cent net operating income on their book value in the three years 1922, 1923 and 1924, and 30 others with 60,934 miles averaged less than 4 per cent. The answer is (*a*) that many of these roads have non-operating incomes which help them out, (*b*) that the situation is improving somewhat anyway through a gradual increase in efficiency, (*c*) that not more than one or two of these roads, if forced into bankruptcy, would actually discontinue service, but would instead reduce their capital burden so that a fair return on it would be possible — a result which would benefit the public and would be necessary anyway as part of any deal for voluntary consolidation with a stronger road. On the other hand mere consolidation would not be likely to help such roads much. Weak roads may be weak through capital inflation, which can be cured as above, or poor territory, which cannot be cured, or inadequate rate divisions, which can be adjusted without consolidation, or poor management, which may be cured with or without consolidation.

Reduced rates

It is argued that when existing rates give strong roads too much profit in order to keep weak roads alive, consolidation of the strong with the weak would pool the profits and so enable rate reduction. This would be true if rates at

present were set to give a "fair return" on the value of the weakest roads. But that is not the case. Rates are set to give a "fair return" on the aggregate value of all roads within the region in question. Consolidation would not change the aggregate value.

Systems of approximately the same size and earning power

By consolidation such systems might be created. But how long would they remain so? The country is still growing, territories and industries rise and fall; management changes. Roads which used to be strong are now weak. Roads like the Seaboard Air Line and the Southern have greatly improved their position. The Baltimore and Ohio has gained on the Pennsylvania. We cannot postulate a static condition as a basis for consolidation.

Those who argue this way do not deny that consolidation may produce some benefits, particularly in service. They maintain only that its virtue as a solvent of railroad problems has been exaggerated.

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Nevertheless, projects for unification are going forward all the time. Applications of railroads to acquire control of others not merely through formal consolidation but through operating contracts, leases, purchase of stock, etc. — which is very much the same thing — have totaled over 26,000 miles since the passage of the Transportation Act. Many of these which have been granted interfere in detail with the comprehensive consolidation plans. More ambitious projects are in the wind. Not all of them are sponsored by traders like the Van Sweringens, but almost all seem more like the old scramble to build systems for profit or exclusive advantage than like an attempt to carry out the purposes of Congress. The energetic Mr. L. F. Loree wants to consolidate several of the anthracite carriers, build a new line across Pennsylvania, and link up the Kansas City Southern and other properties in the Southwest. He is opposed by the other eastern trunk lines. These lines in turn are not in accord about the disposal of entries to New York City such as the Jersey Central, and the short routes across Pennsylvania. Final decisions in these matters are likely to be made by the big bankers. The three Hill properties in the Northwest want to be consolidated together in order to keep their dominant position; scientific consolidationists and other northwestern interests want them separated. The Illinois Central has bought an outlet to

the South Atlantic. Though it was planned to join the Rock Island with the Southern Pacific, the Frisco slipped into the market and bought a controlling interest in the Rock Island. Etc., etc. It looks as if, by giving way to an indiscriminate sentiment in favor of consolidation which is just about as ill founded as the previous sweeping sentiment against combination, we had succeeded merely in lifting the floodgates for a continuation of the old, familiar process.

What will be the outcome? Some public advantage, no doubt. But knotty railroad problems will probably remain. Logical consolidation may be delayed, or not achieved. And certain close observers believe that when the public finally comes to understand the enormous power which will be wielded by the minority interests of various kinds who are almost certain to control the enlarged systems, the sentiment for government ownership is likely to return, stronger than ever.

XXXII. THE DECISION IN THE O'FALLON CASE [1]

The Supreme Court of the United States

Mr. Justice McReynolds delivered the opinion of the court:

These are cross appeals from the final decree of the District Court, Eastern Missouri — three judges sitting — in a suit to annul an Interstate Commerce Commission order, dated February 15, 1927, which directed St. Louis and O'Fallon Railway Company to place in a reserve fund one-half of its determined excess income for the years 1920 (ten months), 1921, 1922 and 1923 (that is, half of the sum by which the net railway operating income for each of those years exceeded 6 per cent of the ascertained value of property devoted to public service); and to pay to the Commission the remaining one-half with 6 per cent interest beginning four months after termination of the year, i. e., May 1, 1921, 1922, 1923 and 1924.

Section 15*a*, added to the Interstate Commerce Act by Transportation Act, 1920, contains nineteen paragraphs. Of those specially important here, . . . 4 and 6 follow:

(4) For the purpose of this section, such aggregate value of the property of the carriers shall be determined by the Commission from time to time and as often as may be necessary. The Commission may utilize the results of its investigation under Section 19*a* of this Act, in so far as deemed by it available, and shall give due consideration to all the elements of value recognized by the law of the land for rate-making purposes, and shall give to the property investment account of the carriers only that consideration which under such law it is entitled to in establishing values for rate-making purposes. Whenever pursuant to Section 19*a* of this Act the value of the railway property of any carrier held for and used in the service of transportation has been finally ascertained, the value so ascertained shall be deemed by the Commission to be the value thereof for the purpose of determining such aggregate value.

(6) If, under the provisions of this section, any carrier receives for any year

[1] The St. Louis & O'Fallon Railway Co. *et al.*, Appellants, *v.* United States *et al.*; United States *et al. v.* St. Louis & O'Fallon Railway Co. *et al.*, 279 U.S. 461. Opinion delivered May 20, 1929.

a net railway operating income in excess of 6 per centum of the value of the railway property held for and used by it in the service of transportation, one-half of such excess shall be placed in a reserve fund established and maintained by such carrier, and the remaining one-half thereof shall, within the first four months following the close of the period for which such computation is made, be recoverable by and paid to the Commission for the purpose of establishing and maintaining a general railroad contingent fund as hereinafter described. For the purposes of this paragraph the value of the railway property and the net railway operating income of a group of carriers which the Commission finds are under common control and management and are operated as a single system, shall be computed for the system as a whole irrespective of the separate ownership and accounting returns of the various parts of such system. In the case of any carrier which has accepted the provisions of Section 209 of this amendatory Act the provisions of this paragraph shall not be applicable to the income for any period prior to September 1, 1920. The value of such railway property shall be determined by the Commission in the manner provided in Paragraph 4.

After an investigation instituted under Section 15*a*, May 15, 1924, for the purpose of determining incomes received by St. Louis and O'Fallon Railway Company (The O'Fallon) and Manufacturers' Railway Company (The Manufacturers'), asserted to be parts of one system, for the years 1920–1923, the Commission found: (1) Although the stock of both corporations was mostly owned by the Adolph Busch Estate and their principal officers were the same, they were not carriers operated under common control and management as a single system within Paragraph 6. (2) The Manufacturers' had received no excess operating income. (3) The value of The O'Fallon's property devoted to public service in 1920 (ten months) was $856,065; in 1921, $875,360; in 1922, $978,874; in 1923, $997,236; and during each of those years it received net operative income exceeding 6 per cent upon the stated valuation.

The above-described recapture order followed.

The cause is properly here under the Judicial Code, as amended by Act of February 13, 1925 (U.S.C., Title 28, Sec. 345) —

Sec. 238. A direct review by the Supreme Court of an Interlocutory or final judgment or decree of a district court may be had where it is so provided in the following Acts or parts of Acts, and not otherwise: . . .

(4) So much of "An Act making appropriations for the fiscal year 1913, and for other purposes," approved October 22, 1913, as relates to the review of

interlocutory and final judgments and decrees in suits to enforce, suspend, or set aside orders of the Interstate Commerce Commission other than for the payment of money. . . .

The Act of October 22, 1913 (38 Stat. 219, 220) transferred to District Courts the jurisdiction granted to the Commerce Court by Act of June 18, 1910 (36 Stat. 539); and provided for review by this Court of causes embraced therein. The jurisdiction of the Commerce Court included:

First. All cases for the enforcement, otherwise than by adjudication and collection of a forfeiture or penalty or by infliction of criminal punishment, of any order of the Interstate Commerce Commission other than for the payment of money.

Second. Cases brought to enjoin, set aside, annul, or suspend in whole or in part any order of the Interstate Commerce Commission. . . .

Paragraph (4), Section 238, applies to all those causes formerly cognizable by the Commerce Court and reviewable here. The words "other than for the payment of money" were taken from clause First, Act of 1910, above quoted, and, as there, they delimit the trial court's jurisdiction. They do not inhibit review here of any cause formerly cognizable by the Commerce Court. Moreover, the order under consideration was not merely for payment of money; and the proceeding below was to set aside, not to enforce it.

Wisconsin Railroad Commission *v.* Chicago, Burlington & Quincy Railroad Co., 257 U.S. 563, and Dayton-Goose Creek Railway Co. *v.* The United States, 263 U.S. 456, point out the general purpose of the Transportation Act, 1920, and uphold the validity of Section 15*a*.

The Manufacturers' is a switching road with thirty miles of track within St. Louis, Missouri. The O'Fallon — a coal-carrying road — has nine miles of main line, all in Illinois, and this connects with The Terminal Railroad at East St. Louis. Through the latter, deliveries are made to sundry points in St. Louis, some of which are on The Manufacturers' line. "The distance between the railroad of the O'Fallon and the railroad of the Manufacturers' is about twelve miles, and all communication by rail between the two properties is effected over the tracks of the Terminal, including a bridge over the Mississippi River." Both

the Commission and the District Court held that the record failed to show these two roads were under common control and management and operated as a single system within the meaning of Paragraph 6. We accept their conclusion.

The Commission directed the O'Fallon to pay 6 per cent interest on the recaptured one-half of its ascertained excess net railway operating income beginning four months from the end of the year during which the excess accrued (Sec. 6). The District Court rightly ruled that as the carrier made *bona fide* denial of any excess under circumstances sufficient to justify a contest, no interest should have been imposed for any time prior to the final order. Not until then could the carrier know what, if anything, it should pay.

Also, we think the District Court rightly rejected the claim that excess earnings were not recapturable unless and until the Commission had fixed a general level of rates intended to yield fair return upon the aggregate value of carrier property, either as a whole or in some prescribed rate or territorial group. Congress, of course, realized that final valuations would require prodigious expenditure of time and effort; but the language concerning recapture indicates that prompt action was expected. Practical application of Paragraphs 5 and 6 does not necessarily depend upon prior compliance with Paragraphs 2 and 3. The Act should be construed so as to carry out the legislative purpose. The proviso of Paragraph 3 prescribing action to be taken during two years beginning March 1, 1920, and the clause of Paragraph 6 excepting the income of certain roads prior to September 1, 1920, are hardly compatible with this claim by the carrier.

Paragraph 4, Section 15*a*, directs that in determining values of railway property for purposes of recapture the Commission "shall give due consideration to all the elements of value recognized by the law of the land for rate-making purposes, and shall give to the property investment account of the carriers only that consideration which under such law it is entitled to in establishing values for rate-making purposes." This is an express command; and the carrier has clear right to demand compliance therewith.[1]

[1] United States *ex rel.* Kansas City Southern Railway Co. *v.* Interstate Commerce Commission, 252 U.S. 178, 1920.

Legally recognized elements of value

"The elements of value recognized by the law of the land for rate-making purposes" have been pointed out many times by this Court. . . . Among them is the present cost of construction or reproduction.

Thirty years ago, Smyth *v.* Ames announced:

> We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.

Present cost and fair return

In Southwestern Bell Telephone Co. *v.* Public Service Commission, we said:

> It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of the probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for tomorrow cannot ignore prices of today.

The doctrine above stated has been consistently adhered to by this Court.

The report of the Commission is long and argumentative. Much of it is devoted to general observations relative to the method and purpose of making valuations; many objections are urged to doctrine approved by us; and the superiority of another view is stoutly asserted. It carefully refrains from stating that any consideration whatever was given to pres-

ent or reproduction costs in estimating the value of the carrier's property. Four dissenting Commissioners declare that reproduction costs were not considered; and the report itself confirms their view. Two of the majority avow a like understanding of the course pursued.

The following from the dissenting opinion of Commissioner Hall, concurred in by three others, accurately describes the action of the Commission:

> In order to determine the value of the O'Fallon property devoted to carrier service during the recapture periods, ten months in the year 1920 and the years 1921, 1922, and 1923, we start with a valuation or inventory date of June 30, 1919. The units in existence on that date are known. Original cost of the entire property can not be ascertained. As to the man-made units, we estimate the cost of reproducing them in their condition on that date and in so doing apply to the units installed prior to June 30, 1914, the unit prices of 1914, representing a fairly consistent price level for the preceding five or ten years. To like units installed after June 30, 1914, and prior to June 30, 1919, we apply the same prices, but add a sum representing price increases on those units during that period. For the third period, from June 30, 1919, down to each recapture date, we abandon estimate and turn to recorded net cost of additions less retirements. On this composite, made up of estimated value for two periods and ascertained net cost for the third period, the majority base a conclusion as to value at recapture date of the man-made items. Land goes in at its current value as measured by that of neighboring lands.
>
> Without summarizing the other processes, all clearly stated in the majority report, it will be observed that the rate-making value arrived at for the successive recapture periods, as, for example, the year 1923, rests upon 1923 market value of lands; costs of other property installed since June 30, 1919; unit prices of 1914, enhanced by allowance for increased cost of units installed during June 30, 1914–1919; and, for the units installed prior to June 30, 1914, constituting by far the major part of the property, unit prices of 1914 without any enhancement whatever. As to this major part of the carrier's property devoted to carrier purposes in 1923, no consideration is given to costs and prices then obtaining or to increase therein since 1914.

In the exercise of its proper function this Court has declared the law of the land concerning valuations for rate-making purposes. The Commission disregarded the approved rule and has thereby failed to discharge the definite duty imposed by Congress. Unfortunately, proper heed was denied the timely admonition of the minority — "The function of this Commission is not to act as an arbiter in economics, but as an agency of

Congress, to apply the law of the land to facts developed of record in matters committed by Congress to our jurisdiction."

The question on which the Commission divided is this: When seeking to ascertain the value of railroad property for recapture purposes, must it give consideration to current, or reproduction, costs? The weight to be accorded thereto is not the matter before us. No doubt there are some, perhaps many, railroads the ultimate value of which should be placed far below the sum necessary for reproduction. But Congress has directed that values shall be fixed upon a consideration of present costs along with all other pertinent facts; and this mandate must be obeyed.

It was deemed unnecessary by the Court below to determine whether the Commission obeyed the statutory direction touching valuations since the order permitted the O'Fallon to retain an income great enough to negative any suggestion of actual confiscation. With this we cannot agree. Whether the Commission acted as directed by Congress was the fundamental question presented. If it did not, the action taken, being beyond the authority granted, was invalid. The only power to make any recapture order arose from the statute.

The judgment of the court below must be reversed. A decree will be entered here annulling the challenged order. Reversed.

Mr. Justice Butler took no part in the consideration or determination of this cause.

XXXIII. DISSENTING OPINION IN THE O'FALLON CASE [1]

By Louis D. Brandeis
Associate Justice, Supreme Court of the United States

The main question for consideration is that of statutory construction. By Transportation Act, 1920, Congress delegated to the Interstate Commerce Commission the duty to establish and maintain rates which will yield "a fair return upon the aggregate value of the railway property" of the United States. By Paragraph 4 thereof, it directs that in ascertaining value the Commission shall "give due consideration to all the elements of value recognized by the law of the land for rate-making purposes," and shall "give to the property investment account only that consideration which under such law it is entitled to in establishing values for rate-making purposes."

The report of the Commission, which accompanies the order challenged, declares: "In the methods of valuation which we have followed in this proceeding we have endeavored to give heed to this direction [that contained in Paragraph 4] . . ."

Speaking for the dissenting members, Mr. Commissioner Hall said: "If the law needs change, let those who made it change it. Our duty is to apply the law as it stands." And Mr. Commissioner Atchison added: "If we anticipate grave results will follow, our reponsibility will be fully met if we suggest to the Congress, under our statutory powers to recommend new legislation to that body, the enactment of a rule for rate making under the commerce clause which will have no such unfavorable effects."

Section 15*a* makes no specific reference either to the original cost of the

[1] St. Louis and O'Fallon Railway Co. *et al. v.* United States *et al.*, 279 U.S. 461 488, 1929. The full text of Justice Brandeis' dissenting opinion is reprinted here; the page references to various documents and the notes accompanying the opinion are omitted. Certain important citations in the text have been retained, but appear as footnotes. In addition to this dissenting opinion there was also a dissenting opinion by Justice Stone in which Justices Brandeis and Holmes concurred.

property, or to prudent investment, or to current reproduction cost, or to the then existing price level. Section 19*a* (the valuation provisions of the Act of 1913), to which Section 15*a* refers, directs the Commission to report, among other things, "in detail as to each piece of property, . . . the original cost to date, the cost of reproduction new, the cost of reproduction less depreciation"; and also "other values, and elements of value."

After the enactment of Section 15*a* and before entry of the order challenged, it was held in Southwestern Bell Telephone Co. *v.* Public Service Commission, 262 U.S. 276, a case arising under a state law, that the rate-base on which a public utility is constitutionally entitled to earn a fair return is the then actual value of the property used and useful in the business, not the original cost or the amount prudently invested in the enterprise.

Reproduction cost admissible as evidence

The Government concedes that current reproduction cost is admissible as evidence to show present value under Section 15*a*. The carrier concedes now that neither Congress, nor the common law, made current reproduction cost the measure of value. The question on which the Commission divided is this: Did Congress require the Commission when acting under Section 15*a* to give, in all cases and in respect to all property, some, if not controlling, effect to evidence establishing the estimated current cost of reproduction? Or did Congress intend to leave to the Commission the authority to determine, as in passing upon other controverted issues of fact, what weight, if any, it should give to that evidence?

The O'Fallon contends, among other things, that the order is confiscatory. The claim is that the order left to the company a return of only 4.35 per cent upon the value ascertained in accordance with the rule declared in the Southwestern Bell Case and McCardle *v.* Indianapolis Water Co., 272 U.S. 400.

If this were true, it would be immaterial whether Congress purported to authorize the course pursued by the Commission. But the fact is that, in each of the recapture periods, the earnings were so large as to leave, after making the required payments to the Commission, about 8 per cent on what the carrier alleged was the fair value of the property.

The O'Fallon argues that, since the statute and the order required it to hold as a reserve one-half of the excess over 6 per cent, it is deprived of that property. This is not true. The requirement that one-half of the earnings in excess of 6 per cent shall be retained by the carrier until the reserve equals 5 per cent of the value of the railroad does not deprive the carrier of any property. It merely regulates the use thereof.[1] The provision is one designed to secure financial stability; and is similar to those prescribing sinking funds, depreciation, and other appropriate accounts.

Congress may regulate the use of railroad property so as to ensure financial as well as physical stability. Both are essential to the safety and the service of the public.[2] If the failure to give to the evidence of current reproduction costs the effect claimed for it by the O'Fallon was error, it is not because the carrier's constitutional rights have been invaded, but because the Commission failed to observe a rule prescribed by Congress for determining the amounts to be recaptured and reserved.

The claim of the O'Fallon is in substance that, since construction costs were higher during the recapture periods than in 1914, the order should be set aside, because the Commission failed to find that the existing structural property and equipment which had been acquired before June 30, 1914, was worth more than it had been then. The Commission undertook, as will be shown, to find present actual value and, in so doing, both to follow the direction of Congress and to apply the rule declared in the Southwestern Bell Case. It is true that this Court there declared that current reconstruction cost is an element of actual value; and that Congress directed the Commission "to give due consideration to all the elements of value recognized by the law of the land for rate-making purposes." But, while the Act required the Commission to consider all such evidence, neither Congress nor this Court required it to give to evidence of reconstruction cost a mechanical effect or artificial weight. They left untrammeled its duty to give to all relevant evidence such probative force as, in its judgment, the evidence inherently possesses. The Com-

[1] Compare Kansas City Southern Railway Co. *v.* United States, 231 U.S. 423, 453.

[2] In Dayton-Goose Creek Railway Co. *v.* United States, 263 U.S. 456, 486, where the facts were in this respect identical with those in the case at the bar, the constitutional validity of the order was sustained.

mission concluded that in respect to the evidence of reproduction costs the differences between the Southwestern Bell case and that at bar were such as to lead to different results in the two cases. It did so mainly because "in the administration of the valuation and recapture provisions," ascertainment of value "is affected by a vast variety of considerations that either do not enter into, or are less easily perceived in, problems incident to the regulation of local public utilities." In my opinion the conclusions of the Commission are well founded. To make clear the reasons, requires consideration of the function of the Commission in applying Section 15*a* and of the problems with which it is confronted.

Commission qualified to decide

First. The Commission is a fact-finding body. The question whether it must give to confessedly relevant facts evidential effect is solely one of adjective law.[1] Statutes have sometimes limited the weight or effect of evidence. They have often created rebuttable presumptions and have shifted the burden of proof. But no instance has been found where under our law a fact-finding body has been required to give to evidence an effect which it does not inherently possess. Proof implies persuasion. To compel the human mind to infer in any respect that which observation and logic tells us is not true interferes with the process of reasoning of the fact-finding body. It would be a departure from the unbroken practice to require an artificial legal conviction where no real conviction exists.

An arbitrary disregard by the Commission of the probative effect of evidence would, of course, be ground for setting aside an order, as this would be an abuse of discretion. Orders have been set aside because entered without evidence; or because matters of fact had been considered which were not in the record; or because the Commission excluded from consideration facts and circumstances which ought to have been considered; or because it took into consideration facts which could not legally influence its judgment. But no case has been found in which this Court has set aside an order on the ground that the Commission failed to give effect to evidence which seemed to the Court to be of probative force, or

[1] Adjective law deals with the methods of enforcing the rights created by substantive law (see page 160) or obtaining redress for their invasion. It is sometimes called procedural law. — The Editor.

on the ground that the Commission had drawn from the evidence an inference or conclusion deemed by the Court to be erroneous. On the contrary, findings of the Commission involving the appreciation or effect of evidence have been treated with the deference due to those of a tribunal "informed by experience" and "appointed by law" to deal with an intricate subject.[1] Unless, therefore, Congress required the Commission not only to consider evidence of reconstruction cost in ascertaining values for rate-making purposes under Section 15*a*, but also to give, in all cases and in respect to all property, some weight to evidence of enhanced reconstruction cost, even if that evidence was not inherently persuasive, the Commission was clearly authorized to determine for itself to what extent, if any, weight should be given to the evidence; and its findings should not be disturbed by the Court, unless it appears that there was an abuse of discretion.

Second. While current reproduction cost may be said to be an element in the present value of property, in the sense that it is "evidence properly to be considered in the ascertainment of value" (Standard Oil Co. *v.* Southern Pacific Co., 268 U.S. 146, 156), it is clear that current cost of reproduction higher than the original cost does not necessarily tend to prove a present higher value. Often the fact of higher reconstruction cost is without any influence on present values. It is common knowledge that the current market value of many office buildings and residences constructed prior to the World War have failed to reflect the greatly increased building costs of recent years, although the need of new buildings of like character was being demonstrated by the large volume of construction at the higher price level. Many railroads built before the World War have never been worth as much as their original cost, because high construction cost combined with adverse operating conditions and limited traffic have at all times prevented their earning, despite reasonable rates, a fair return on the original cost. The Puget Sound extension of the Chicago, Milwaukee and St. Paul is a notable example. Many branches, and indeed whole lines of railroad, have been scrapped since 1920. Abandonment of 2,439 miles of railroad was authorized under Paragraph 18 of Section 1 of the Interstate Commerce Act between 1920 and 1925; and

[1] Illinois Central Railroad Co. *v.* Interstate Commerce Commission, 206 U.S. 441, 454, 1907.

in the three following years 2,010 miles more. These properties had, in the main, become valueless for transportation, either because traffic ceased to be available or because competitive means of transportation precluded the establishment of remunerative rail rates. Obviously, no one would contend that their actual value just before abandonment was what it originally cost to construct them or what it would then have cost to reconstruct them.

Commission permitted to exercise discretion

Third. The terms of Section 15*a* and its legislative history preclude the assumption that Congress intended by Paragraph 4 to deny to the Commission in respect to evidence of reconstruction cost the discretion commonly exercised in determining what weight, if any, shall be given to an evidential fact. In 1920, no fact was more prominent in the mind of the public and of Congress than that the cost of living was far greater than that prevailing when the existing railroads were built. But, neither in Transportation Act, 1920, nor in any committee report, is there even a suggestion that the Commission would be required to give to that fact any effect in ascertaining values for rate-making purposes under Section 15*a*.

If it had been the intention of Congress to compel the Commission to increase values for rate-making purposes because the price level had risen, it would naturally have incorporated such a direction in the paragraph. On the other hand, the committee reports and the debates show that the opinion was quite commonly held that the actual values were less than the property investment account appearing on the books of the carriers; and the proposal made by the railroads that the investment account be accepted as the measure of value was resisted as being excessive.

The property investment account in 1920 was about nineteen billions of dollars. The then reproduction cost of the railroads, applying index figures to estimated actual cost, was over forty billions. It is inconceivable that Congress, after rejecting property investment account as excessive, intended by Section 15*a* to make mandatory on the Commission the consideration of elements which would give a valuation double that which had been rejected.

The insertion in Section 15*a* of the provision that the Commission "shall give to the property investment account of the carriers only that

consideration which under the law it is entitled to in establishing values for rate-making purposes" and the rejection of other proposed measures of value show that Congress intended not to impose restrictions upon the discretion of the Commission.

Congress did intend to provide a return on the existing railroad property which should be only slightly more than that which had been enjoyed during the six preceding years. To have required that the then price level be reflected in the values to be fixed under Section 15*a* would have resulted in a rate-base of double the property investment account of the carriers. For the cost of living was then about double pre-war prices. The prescribed fair return applied to such a rate-base would have produced more than double the average net earnings from operation of the several properties during the three years preceding Federal control; more than double the amount which the carriers agreed to accept under the Federal Control Act, March 21, 1918, C. 25, Section 1, 40 Stat. 451, as fair compensation for the use of their property; more than double the guarantee provided by Transportation Act, 1920, Section 209, for the six months' period after the surrender of control. The sum which the railroads had thus earned net in those six years equaled 5.2 per cent on the property investment account, as carried on their books.

In making provision for a fair return, the main purpose was not to increase the earnings of capital already invested in railroads, but to attract the new capital needed for improvement or extension of facilities.

This was to be accomplished by raising the rate of return from 5.2 per cent to 5.5 per cent (Senate Reports, vol. I, No. 304, 66th Cong., 1st Sess.):

> The basis adopted by the committee is three-tenths of 1 per cent higher than the basis of the test period (the three years preceding June 30, 1917); and assuming, though not conceding, that the value of the property is equal to the property investment accounts, it will yield for all the railways a net operating income of $54,000,000 in excess of the income of the test period. There were two considerations which led the majority of the committee to believe that this increase is not only warranted but necessary:
>
> First. The railways are being returned to their owners when everything is unsettled and abnormal; when there is suspicion and distrust everywhere. Just what rate of return will enable the carriers to finance themselves under

such conditions cannot, with certainty, be determined. It was felt, therefore, that some increase over the pre-war period was justifiable.

Second. As compared with all kinds of commodities, money is much less valuable than it was a few years ago, and it would seem to be only fair that the returns from railway investments should be reasonably advanced.

The means by which the bill was to accomplish the desired end are thus stated in the report:

First: By prescribing a basis of return upon the value of the railway property, to give such assurance to investors as will incline them to look with favor upon railway securities; that is to say, by making a moderate return reasonably certain to establish credit for the carriers.

Second: In making the return fairly certain to secure for the public a lower capital charge than would otherwise be necessary.

Third: In requiring some carriers, which under any given body of rates will earn more than a fair return, to pay the excess to the Government and in so using this excess that transportation facilities or credit can be furnished to the weaker carriers, and thus help to maintain the general system of transportation.

Either increase in the rate of return or increase of the base on which that return is measured would have served to adjust compensation to higher price levels. The adoption by Congress of the increase in the return, as the means of compensating for the decreased purchasing power of the dollar, precludes the assumption that it intended that the valuation should reflect that lessened purchasing power. By explicitly choosing the former, Congress implicitly rejected the latter. For to have allowed an increase in both would have gone beyond adjusting earnings to increased costs and have made this increase a mere pretext for allowing unwarranted profits to the railroads. The proceedings which led to the passage of the Act makes it clear that Congress intended no such result.

Fourth. The declared purpose of Congress in enacting Section 15*a* was the maintenance of an adequate national system of railway transportation, capable of providing the best possible service to the public at the lowest cost consistent with full justice to the private owners. Following the course consistently pursued by this Court in applying other provisions of the Interstate Commerce Act,[1] the Commission construed Section

[1] Texas & Pacific Railway Co. *v.* Interstate Commerce Commission, 162 U.S. 197, 211, 219; New England Divisions case, 261 U.S. 184, 189–190; Dayton-Goose Creek Railway Co. *v.* United States, 263 U.S. 456, 478.

15*a* in the light of the declared purpose of Congress and of the economic factors involved. From its wide knowledge of actual conditions and its practical experience in rate-making, it concluded that to give effect to enhanced reproduction costs would defeat that purpose.

It knew that the value for rate-making purposes could not be more than that sum on which a fair return could be earned by legal rates; and that the earnings were limited both by the commercial prohibition of rates higher than the traffic would bear and the legal prohibition of rates higher than are just and reasonable. It knew that a rate-base fluctuating with changes in the level of general prices would imperil industry and commerce. It knew that the adoption of a fluctuating rate-base would not, as is claimed, do justice to those pre-war investors in railroad securities who were suffering from the lessened value of the dollar, since the great majority of the railroad securities are represented by long-term bonds or the guaranteed stocks of leased lines which bear a fixed return; and that only the stockholders could gain through the greater earnings required to satisfy the higher rate-base. It recognized that an adequate national system of railways, so long as it is privately owned, cannot be provided and maintained without a continuous inflow of capital; that "obviously, also, such an inflow of capital can only be assured by treatment of capital already invested which will invite and encourage further investment" and that as was said in Dayton-Goose Creek Railway Co. *v.* United States, 263 U.S. 456, 481: "By investment in a business dedicated to the public service the owner must recognize that, as compared with investment in private business, he cannot expect either high or speculative dividends but that his obligation limits him to only fair or reasonable profit."

The conviction that there would in time be a fall in the price level was generally held. As a fluctuating rate base would thus directly imperil industry and commerce and investments made at relatively high price levels during and since the World War; would tend to increase the cost of new money required to supply adequate service to the public; and would discourge such investment, the Commission concluded that Congress could not have intended to require it to measure the value or rate-base by reproduction cost, since this would produce a result contrary to its declared purpose. And as confirming its construction of Section 15*a*

the Commission showed that, with the stable rate-base which it had accepted as the basis for administering the Act, the aim of Congress to establish an adequate national system had been attained. It pointed out that: "During the period 1920–1926, inclusive, the investment in railroad property increased by $4,000,000,000. A substantial part of this money was derived from income, but much of it was obtained by the sale of new securities. The market for railroad securities since the passage of the Transportation Act, 1920, has steadily improved and the general trend of interest rates has been downward. The credit of the railroads in general is now excellent. . . ."

Fifth. Other considerations confirm the construction given by the Commission to the phrase "value for rate-making purposes," as used in Section 15*a*. In condemnation proceedings, the owner recovers what he has lost by the taking of the property, Boston Chamber of Commerce *v.* Boston, 217 U.S. 189, 195; and such loss must be determined "not merely with reference to the uses to which it is at the time applied, but with reference to the uses to which it is plainly adapted."[1] But the actual value of a railroad — its value for rate-making purposes under Section 15*a* — may be less than its condemnation value. As was said in Southern Ry. Co. *v.* Kentucky, a case involving state taxation: "The value of the physical elements of a railroad — whether that value be deemed actual cost, cost of reproduction less depreciation or some other figure — is not the sole measure of or guide to its value in operation. Much weight is to be given to present and prospective earning capacity at rates that are reasonable, having regard to traffic available and competitive and to her conditions prevailing in the territory served."

Value has been defined as the ability to command the price. Railroad property is valuable as such only if, and so far as, used. If rates are too high, the traffic will not move. Hence, the value or rate-base is necessarily dependent, in the first place, upon the commercial ability of the property to command the rates which will yield a return in excess of operating expenses and taxes; and such value cannot be higher than the sum on which, with the available traffic, the fair return fixed under Section 15*a* can be earned. Persistent depression of rates or lessening

[1] Boom Co. *v.* Patterson, 98 U.S. 403, 408. Compare Louisville & Nashville Railroad Co. *v.* Barber Asphalt Co., 197 U.S. 430, 435, 1905.

volume of traffic, from whatever cause arising, ordinarily tends to lower actual values of railroad properties. It follows, that since the Commission is required by the rule of Smyth *v.* Ames, reaffirmed in the Southwestern Bell Case, to determine the rate-base under Section 15*a* by actual value as distinguished from prudent investment, it must in making the finding consider the effect upon value of both the commercial and the legal limitations upon rates and, among other things, the effect of competition upon the volume of traffic.

Recent experience affords striking examples of commercial limitations upon rates. In *Ex parte* 74, Increased Rates, 1920, 58 I.C.C. 220, the Commission sought to establish rates which would yield 6 per cent upon the aggregate values of the railroads in the several groups. The carriers claimed as the aggregate value $20,040,572,611 — that amount being carried on their books as the cost of road and equipment. The Commission fixed the value about 5 per cent lower — at $18,900,000,000. In order to produce on that sum net earnings equal to 6 per cent, it increased freight rates, in the eastern group, 40 per cent over the then existing rates; in the southern group, 25 per cent; in the western group, 35 per cent; and in the mountain-Pacific group, 25 per cent. As a result of these increases, the average gross revenue per ton mile in 1921 was, in the eastern district, 96.1 per cent greater than for the fiscal year ended June 30, 1914; in the southern, 61.4; in the western, 59.3; and in the United States as a whole, 76.2. Passenger rates were subjected by the order in *Ex parte* 74, to a flat increase of 20 per cent and surcharges were added.

Carriers desired reduced rates

On a large number of basic commodities, which were among the most important articles of commerce, the rates proved to be higher than the traffic would bear. Reductions became imperative. Within a year after the entry of that order, many applications for reductions were made to the Commission, not only by shippers but also by the carriers themselves. It was estimated that the reductions in freight rates made by the carriers prior to March 15, 1922, would aggregate for that year $186,700,000; and would lower the general rate level nearly 5 per cent. On some important articles of traffic the entire increase made by *Ex parte* 74 was canceled.

Further reductions were then ordered by Reduced Rates, 1922, 68 I.C.C. 676, the Commission saying: "High rates do not necessarily mean high revenues, for, if the public cannot or will not ship in normal volume, less revenue may result than from lower rates. Shippers almost unanimously contend, and many representatives of the carriers agree, that 'freight rates are too high and must come down.' This indicates that transportation charges have mounted to a point where they are impeding the free flow of commerce and thus tending to defeat the purpose for which they were established, that of producing revenues which would enable the carriers 'to provide the people of the United States with adequate transportation.'" Further reductions made in the year 1923 are said to have again lowered freight rates 5 per cent. The effect of the several reductions made in the rates authorized by *Ex parte* 74 is said to have lowered by $800,000,000 the freight charges otherwise payable on the traffic carried during the eighteen months ending December 31, 1923. Each year since has witnessed a further lowering in the revenue per ton mile and per passenger mile.

This constant lowering of the weighted average of rates since 1920 must have been due to causes other than desire on the part of the Commission. Its aim was to adjust rates so that they would yield the prescribed return. But for the period from 1920 to 1927 inclusive, there was only one year in which the railroads of the United States as a whole, despite general prosperity and greater efficiency, earned on the value found in *Ex parte* 74 brought down to date, the full average return prescribed as fair under Section 15*a*. The Commission repeatedly refused to permit carriers to make reductions, because the reduction would lower the revenues sought to be provided under Section 15*a*. On the other hand, carriers, although earning less than the fair return prescribed under Section 15*a*, have often voluntarily reduced rates. The lowering of rates was probably due in large measure to the influence of competing means of transportation.

Water and highway competition

Sixth. Since 1914, the railroads have been obliged, to an ever increasing extent, to compete with water lines and with motors. This competition has been fostered by the Government through the Panama Canal Act;

through the Intracoastal Waterways Acts; through the Inland Waterways Acts; through the development of coastwise shipping by means of harbor improvements; and through Federal aid in the construction of highways. There has also been increased competition by pipe lines. Competition from other means of transportation has tended to arrest the normal increase in the volume of rail traffic; and as to some traffic it has actually produced a reduction in both the volume and the rates. It has resulted in a general shrinkage in the passenger business; in some regions, in a lessening of the carload freight; and in many, in a reduction of the volume of the less-than-carload freight.

The influence of water competition on rates is strikingly illustrated by the effect of the Panama Canal on transcontinental freight rates. In order to meet this water competition carriers have repeatedly asked leave to make sweeping reductions. Rates voluntarily established by the rail carriers are lower now, on some articles of traffic, than they were in 1914. On others they are only a little higher. The influence of competition by the inland waterways on the volume of rail traffic is illustrated in the effect which improvement of the Ohio River and its tributaries has had in the Pittsburgh district. The rail tonnage in 1927 was materially less than in 1914, while the water tonnage more than doubled. The influence of barge lines in reducing or holding down rail rates is illustrated by the rail rates in competition with those of the barge lines on the Ohio, the Mississippi and the Warrior Rivers. The widespread effect of competition by motor truck in lowering both the rates and volume of rail traffic is obvious. Not obvious, but indisputable, has been the effect of the potential competition of pipe lines shown by reductions in oil rates caused by the threat of competing pipe lines.

Provisions of law lower rates

Moreover, rates which are not so high as to prevent commercially the movement of traffic are often required to be lowered because they conflict with some statutory provision. Thus, Congress compels reduction of rates which discriminate unjustly against individuals, localities, articles of traffic or other carriers. Perhaps the most striking instance of the limitation by law of rates which the traffic would bear commercially is furnished by cases under the long and short haul clause. By that clause,

a rail carrier is often obliged (unless relieved by order of the Commission) to elect between suffering practically a total loss of existing traffic between competitive points or suffering a loss in existing revenues by reducing rates at both the competitive points and intermediate non-competitive points. The effect of this limitation upon rates, and hence upon the actual value of railroads, has become very great. Its influence has grown steadily with the growth of competition by water and motor, with the growth in the size of the individual railroad system, with the growth in the dependence of railroads for their revenues upon long haul freight traffic and with the growing length of the average haul. It has become so important for rail carriers to hold a share of the long haul freight traffic at competitive points, that the long and short haul clause, if not relieved from, results in the carriers' giving, in large measure, to the intermediate non-competitive points which otherwise would be subject to monopoly exactions, the full benefit of that lowering of rates required to meet the competition. The many applications for reductions made in petitions for relief from the operation of the long and short haul clause illustrate the influence of rail, as well as of water and motor, competition in thus depressing rates. Congress has by that clause limited values for rate-making purposes under Section 15*a* almost as effectively as by its promotion of competitive means of transportation.

Seventh. In requiring that the value be ascertained for rate-making purposes, Congress imposed upon the rate-base, as defined in Smyth *v.* Ames, still another limitation which is far-reaching in its operation. By declaring in Section 15*a* that the Commission shall, "in the exercise of its power to prescribe just and reasonable rates," so adjust them that upon the value a fair return may be earned "under honest, efficient and economical management," Congress made efficiency of the plant an element or test of value. Efficiency and economy imply employment of the right instrument and material as well as their use in the right manner. To use a machine after a much better and more economical one has become available, is as inefficient as to use two men to operate an efficient machine, when the work could be performed equally well by one, at half the labor cost. Such an instrument of transportation, although originally well conceived and remunerative, should, like machines used in manufacturing, be scrapped when it becomes wasteful.

Independently of any statute, it is now recognized that, when in confiscation cases it is sought to prove actual value by evidence of reproduction cost, the evidence must be directed to the present cost of installing such a plant as would be required to supply the same service. For valuation of public utilities by reproduction cost implies that "the rates permitted should be high enough to allow a reasonable per cent of return on the money that would now be required to construct a plant capable of rendering the desired service"; and does not mean "that the plant should be valued at what would now be needed to duplicate the plant precisely." Proof of value by evidence of reproduction cost presupposes that a plant like that being valued would then be constructed. To the extent that a railroad employs instruments which are inconsistent with efficiency the plant would not be constructed; and because of the inefficient part, the railroad is obviously not then worth the cost of reconstructing the identical plant. While a part often has some service value, although not efficient according to the existing standard, its use may involve such heavy, unnecessary operating expense as to render it valueless for rate-making purposes under Section 15*a*. The Commission when requested to consider evidence of reproduction cost must, therefore, examine the value of every part of the plant, and that of the whole plant, as compared with the value of a modern, efficient plant. Upon such consideration the Commission may conclude that the railroad is so largely obsolete in construction and equipment as to render evidence of the reproduction cost of the identical plant of no probative force whatsoever. The duty so to deal with the evidence seems to flow necessarily from the rejection by the Court of prudent investment as the measure of value and the adoption, instead, of the actual value of the property at the time of the rate hearing as the governing rule of substantive law.

The physical deterioration of a railroad plant through wear and tear may be very small as compared with a plant new, while its functional deterioration may be very large as compared with a modern efficient plant. This lessening of service value may be due to any of several causes. It may, in the first place, be due to causes wholly external. Freight terminals, originally well conceived and wisely located in the heart of a city, may have become valueless for rate-making purposes under Section 15*a*, because through growth of the city the expense of operating therein

has become so high or the inescapable cost of eliminating grade crossings so large, that efficient management requires immediate abandonment of the terminals. And, even if the cost of continuing operation there is not so high as to require abandonment, the property may have for rate making purposes a value far below its market value.[1]

The lessening of the service value of a part of the railroad plant may flow from changes in the volume or character of its traffic. For economy and efficiency are obviously to be determined with reference to the business of the carrier then being done and about to be done. A station warehouse for less-than-carload freight may have become valueless for rate-making purposes, because, through motor competition, the railroad had lost substantially all its less-than-carload business at that point. Large reductions in the value of passenger stations and equipment may have resulted from decline in the passenger traffic. Branch lines may lose all their service value so that they should be abandoned because motor transportation has become more efficient. On the other hand, the traffic may have grown so much as to render inefficient a part of a line originally wisely constructed with heavy grades or curves. In that event economy and efficiency will demand elimination of the grades and curves and may even require the building of tunnels or a cut-off. In so far as such a condition exists, the railroad would obviously not be reconstructed with the heavy grades and curves; and when considering the reconstruction cost of the whole property that part of the line must be given merely scrap value.[2]

Technological improvements in transportation

Perhaps the most common cause of the lessening of service value of parts of railroad plants originally well conceived and still in good physical condition is the progress in the art of rail transportation. Science and invention have wrought since June 30, 1914, such extraordinary improvements in the types of automobiles and aëroplanes that no one would contend that the present service value of such machines should be ascertained by enquiring what their original cost was or what their reproduction

[1] Compare Minneapolis & St. Louis Railroad Co. *v.* Minnesota, 186 U.S. 257, 268; Wilcox *v.* Consolidated Gas Co., 212 U.S. 19, 52.

[2] Compare Kansas City Southern Railway Co. *v.* United States, 231 U.S. 423, 1913.

cost would be. The progress since June 30, 1914, in the art of transportation by railroad has been less spectacular; but the art has been far from stagnant. In railroading, as in other fields of business, the great rise in the cost of labor and of supplies, and the need of better service, have stimulated not only inventions but also their utilization. Through technological advances instruments of transportation with largely increased efficiency and economy have been developed. The price of lower operating costs is the scrapping of those parts of the plant which progress in the art render obsolete. The present greatly increased efficiency of the railroads as compared with 1920, their greatly improved credit, and their present prosperity are, in large measure, due to the advances made toward introducing the improved instruments of rail transportation which have become available. Obviously much remains to be done.

The extent of this technological progress may be illustrated by the modern locomotive. The development of the superheater, the mechanical stoker, the booster, and other devices, the increase in the size of the boiler, and other radical changes in size, weight, and design have resulted in the production of engines which are recognized by railway experts as having set such an entirely new standard of efficiency in fuel consumption, in tractive power, and in speed as to render wasteful, under many conditions, the use of older locomotives, no matter how good their condition. Statistics as to actual performances of the locomotive of today as compared with that built but a few years ago graphically illustrate this great advance in efficiency.

Its economies are compelling. But important changes in roadway and equipment are conditions of its effective use. Heavier locomotives make greater demands on the road structure which carry them. To obviate large maintenance espenses attendant upon frequent repair and replacement, the roadway must be made more durable. To this end rails of heavier section and of increased length are adopted. Anticreepers are freely used to prevent rail movement. Larger ties are selected; and they are treated to prevent deterioration. Ballast is made deeper and heavier; and of gravel or stone rather than of cinders. Bridges are of stronger construction. And to facilitate the movement of traffic, watering stations and automatic signals of improved design are introduced. Moreover, the effective employment of the modern locomotive involves ordinarily the

use of larger cars of steel construction, displacing the wooden car of small capacity with which so many of the railroads were equipped in 1914. Engine terminals and carshops built prior to 1914, are, in many cases, inadequate for the efficient and economical handling, housing and repairing of the modern locomotives and cars, and must be replaced to prevent curtailment of the productive capacity of the rolling-stock by needless idle hours while awaiting service or repair. And the waste incident to shop-tools and machinery long since rendered obsolete by progress in the art must be stopped.

Thus, the efficient post-war railroad plant differs widely even from the efficient one of 1914. That during the recapture period here in question the plants of most of the railroads of the United States built before the war were lacking in improved instruments of transportation made available by recent progress in the art is of common knowledge. That this is true even today of many of the railroads will not be denied. To the extent that there is inefficiency in plant, there was and is functional depreciation, lessening actual value. That this functional depreciation, arising through external changes, through competitive means of transportation, and through progress in the art of transportation, may, in respect to a particular railroad, have become so large as more than to counterbalance that increase in its actual value which would otherwise flow from the rise in the price level since 1914, seems clear.

It may be urged that the continued use of the inefficient plant and the repairing rather than replacement of its antiquated parts has been due to lack of capital and insufficient revenues. Such an excuse for failing to install the improved plant might have been conclusive if prudent investment had been accepted as the measure of value. But the fact that the management may have been wholly free from blame in continuing to use the inefficient parts obviously does not add to their actual value. The actual value of an existing plant, and the difference between its value and the present cost of constructing a modern efficient plant which will render the service, is precisely the same whether the continued use of the obsolete part was due to lack of capital, or to lack of good judgment, or to somnolence on the part of the management. As was said in Board of Commissioners *v.* New York Telephone Co., 271 U.S. 23, 32: "Customers pay for the service, not for the property used to render it." Only the then

service value of the property is of legal significance under the rule of Smyth *v.* Ames.[1]

It may also be urged that such functional depreciation of the railroad plant since 1914 is allowed for in the depreciation customarily estimated by the Commission. But this is not true. Functional depreciation prior to June 30, 1914, was included when valuing as of that date the then property of the railroads. But the instructions of the Commission provided that functional depreciation arising after that date should not be considered unless "imminent." And the Commission made clear that it did not intend by the term to include functional depreciation of the character described above arising from external causes, from the competition of new methods of transportation, from the extraordinary urban growth, from the need of new economies arising from the largely increased labor and fuel costs, and from other incidents of the war and post-war developments in industry and transportation.[2]

If weight is to be given to reproduction cost in making the valuation of any railroad for rate-making purposes under Section 19*a* and Section 15*a*, there must be a determination of the functional depreciation of the individual plant as compared with a modern, efficient plant adequate to perform the same service. To make such a determination for any railroad involves a detailed enquiry into the character and condition of all those parts of the plant which may have reduced functional value because of the post-war changes affecting transportation above referred to, and also into the character and the volume of the carrier's business. For the efficient plant means that plant which is economical and efficient for the particular carrier in view of the peculiar requirements and possibilities of its own business. To make such a determination justly, the Commission must have the data on which a competent and vigilant management would insist when required to pass upon the advisability of making capital expenditures. And the Commission would be obliged to give them the same careful consideration. The determination of the extent of functional depreciation is thus a very serious task; a task far more serious than that of determining merely physical depreciation.

[1] 167 U.S. 466, 1898. See also page 300, above. — The Editor.

[2] Texas Midland Railroad, 75 I.C.C. 1, 47–52, 124–130. Compare, Depreciation Charges on Steam Railroads, 118 I.C.C. 285.

Determination a costly task

To make such a determination of functional depreciation annually for each of the railroads of the United States would be a stupendous task, involving perhaps prohibitive expense. To make the necessary decisions promptly would seem impossible, among other reasons, because railroad valuation is but a small part of the many duties of the Commission. On the other hand, to adjust rates so as to render a fair return, and to provide through the recapture provision funds in aid of the weaker railroad, are tasks which Congress deemed urgent; and which must be promptly performed if its purpose is to be achieved. Obviously Congress intended that in making the necessary valuations under Section 15*a* a method should be pursued by which the task which it imposed upon the Commission could be performed. (Compare New England Divisions Case, 261 U.S. 184, 197.) Recognizing this, the Commission construed Section 15*a* as it had paragraph *f* of Section 19*a*. That is, as permitting the Commission to make a basic valuation as of some general date (June 30, 1914, was selected); and to find the value for any year thereafter by adding to or subtracting from the 1914 value the net increases or decreases in the investment in property devoted to transportation service as determined from the carrier's annual returns with due regard to the element of depreciation.

Eighth. The significance, in connection with current reproduction costs, of the requirement in Section 15*a* that value be ascertained "for rate-making purposes" as there defined becomes apparent when the position of railroads, in this respect, is compared with that of most local utilities enjoying a monopoly of a necessary of life. The fundamental question in the Southwestern Bell Case was one of substantive constitutional law, namely: Is the rate-base on which the Constitution guarantees to a public utility the right to earn a fair return the actual value of the property at the time of the hearing or is it the cost or capital prudently invested in the enterprise? The Court decided that the rate-base is the actual value at the time of the rate hearing. That proposition of substantive law the Commission undertook to apply to the facts presented in the case at bar. Recognizing that evidence of increased reconstruction costs is admissible for the purpose of showing an actual value greater than the original cost or the prudent investment, it found in respect to some of the carrier's property that the evidence of enhanced reconstruction cost was

persuasive of higher present value. As to the rest of the property, it held that the evidence was neither adequate nor persuasive.

Excessive rates curtail traffic

Of both railroads and the local utility it is true, under the rule of substantive law adopted in the Southwestern Bell Case, that value is the sum on which a fair return can be earned consistently with the laws of trade and legal enactments. But the operative scope upon railroads of the limitations so imposed upon the rates, and hence upon values, is much greater than in the case of local utilities. Rail rates are being constantly curbed by the competition of markets and of rival means of transportation. Rail rates are curbed also by the influence of high rates upon the desires of individuals. The public can, to a considerable extent, do without rail service. If the rates are excessive, traffic falls off. Thus, when passenger rates are too high, travel is either curtailed or people employ other means of transportation. But the service rendered by a local water company in a populous city is practically indispensable to every inhabitant. There can be no substitute for water, and to escape taking the service is practically impossible; for an alternative means of supply is rarely available. Even the common business incentive of establishing low prices in order to induce an enlarged volume of sales is absent; since the volume of the business done by a water company will not be appreciably affected by a raising or lowering of the rates, except in so far as water in quantity is used for manufacturing purposes. In other words, the commercial limitation upon rates — what the traffic will bear — is to a large extent absent in the case of such a local monopoly. The city water user must submit to such rates as the utility chooses to impose, unless they are curbed by legislative enactment.

The legal limitations upon rates (so potent in the case of railroads) are, in the main, inoperative in the case of such a water company. Rail rates are sometimes held illegal because the exaction is greater than the value of the service to the shipper. There is in fact no corresponding limitation upon water rates. The charge is so small, as compared with the inconvenience which would be suffered in doing without the service, that the worth to the water taker could rarely be doubted. The prohibition of discrimination against persons, places, or articles of commerce

which so frequently interferes to prevent railroads from charging higher rates, although the traffic would easily bear them, affords no protection to city water users; and seldom causes a loss of revenue to the water company. There is in respect to the water rates no prohibition comparable to that embodied in the long and short haul clause, which has an important effect in limiting rail rates. Hence, under the rule of substantive law declared in the Southwestern Bell Case, practically the only limitation imposed upon water rates is the denial to the utility of rates which will yield an excessive return upon the actual value of the property. In applying that rule of substantive law, the then actual cost of reproducing the plant would (assuming it to be efficient) commonly be pursuasive evidence of its actual value, as the current cost of reproducing the vessel was held to be in Standard Oil Co. *v.* Southern Pacific Co., 268 U.S. 146, 156.

It is true that in the Southwestern Bell Case the Court passed also upon a subsidiary question — the weight and effect of the evidence of reconstruction cost. But the question of adjective law arose upon a record very different from that in the case at bar; and the action of the Commission here is entirely consistent with that decision. In the Southwestern Bell Case direct testimony as to the then value of the property was introduced. The efficiency of the plant was unquestioned. Witnesses had testified both to the actual cost of constructing identical property at that time; and that the specific property under consideration was worth at least 25 per cent more than the estimate of the state commission. The court believed those witnesses. Concluding that this direct and uncontradicted evidence had been ignored by the state commission because of error as to the governing rule of substantive law, this Court set aside the rate order as confiscatory, saying: "We think the proof shows that for the purposes of the present case the valuation should be at least $25,000,000." (262 U.S. 276, 288.)

The action of the Commission in the case at bar was consistent also with McCardle *v.* Indianapolis Water Co., 272 U.S. 400, and Bluefield Water Works Co. *v.* Public Service Commission, 262 U.S. 679. Each of these water companies enjoyed a local monopoly of an indispensable service. In order to provide a substitute, the community would have either to take the utility's property by eminent domain; or, if it was free to do so, build a competing plant. There was practically no commercial limitation

upon the earning power of these water companies except the extent of the local market; and practically no legal limitation except the requirement that the rates charged should not be so high as to yield an excessive return upon the actual value of the utility's property. The current cost of constructing then a plant substantially like the utility's (assuming it to be efficient) would be persuasive evidence of its actual value. For upon that issue, concerning a local water monopoly, the enquiry would naturally be: How much would it cost the community to substitute for the private monopoly a publicly owned plant? But evidence of the cost of reconstructing a railroad built before 1914 might, for the reasons stated above, be no indication whatever of its post-war value for rate-making purposes under Section 15*a*. And where, as in the case at bar, the probative force of the evidence may be considered free from any question of confiscation, the rule declared in Ohio Valley Water Co. *v.* Ben Avon, 253 U.S. 287, which requires in confiscation cases a judicial determination on the weight of the evidence, does not apply.

Recapture provision considered

Ninth. A further question of construction requires consideration. It is suggested that, even if the Commission is not required to give effect to the higher price level when finding values for rate-making purposes under Section 15*a*, it must do so when fixing the amount of the excess income to be recaptured from a particular railroad under Paragraphs 6 to 18. The language of the section affords a short answer to that contention.

The valuation prescribed in Paragraph 4 is declared to be "for the purpose of this section" — that is, for recapture purposes as well as for rate-making. And Paragraph 6, which provides for the recapture, declares:

> The value of such railway property shall be determined by the Commission in the manner provided in Paragraph 4.

The recapture of excess earnings and the establishment of reserves are a part of the process of establishing such rates.

> That carriers as a whole (or as a whole in each of such rates groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management . . . , earn an aggregate annual net rail-

way operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation. — Paragraph 2.

The recapture and reserve are the readjustment made necessary:

Inasmuch as it is impossible (without regulation and control in the interest of the commerce of the United States considered as a whole) to establish uniform rates upon competitive traffic which will adequately sustain all the carriers who are engaged in such traffic and which are indispensable to the communities to which they render the service of transportation, without enabling some of such carriers to receive a net railway operating income substantially and unreasonably in excess of a fair return upon the value of their railway property held for and used in the service of transportation, it is hereby declared that any carrier which receives such an income so in excess of a fair return, shall hold such part of the excess, as hereinafter prescribed, as trustee for, and shall pay it to, the United States. — Paragraph 5.

Thus, the direction in the order here challenged to pay or reserve the excess over 6 per cent of the amounts earned from 1920 to 1923 by rates established pursuant to *Ex parte* 74, Increased Rates, 1920, 58 I.C.C. 220, is merely a readjustment of those rates.

Prudent investment as basis of value

Tenth. The question remains whether the Commission, in valuing the structural property acquired before June 30, 1914, abused its discretion by declining to give effect to the evidence of enhanced reconstruction cost.

The O'Fallon insists that the Commission, in fact, adopted a mathematical formula; that it declined to determine the present value of the carrier's property in accordance with "the flexible and rational rule of Smyth *v.* Ames, under which value is a matter of judgment to be determined by a consideration of all relevant facts and circumstances"; that it erected "an arbitrary standard of its own based on no relevant facts"; that if it had given consideration to all relevant facts and circumstances, including as one its cost of reproduction at current prices, "the value found must have been substantially higher"; and that its primary purpose was to determine the amount of the investment in the carriers' property. In short, the O'Fallon asserts that the Commission refused to find actual value; and, instead, found the prudent investment.

In support of this assertion, the O'Fallon points to the statement in the report that "the value of the property of railroads for rate-making purposes . . . approaches more nearly the reasonable and necessary investment in the property than the cost of reproducing it at a particular time." The statement just quoted does not mean that the Commission accepted prudent investment as a measure of value. It means merely that the Commission deemed the estimated original cost a better indication of actual value than the estimated reconstruction cost.

While this Court declared in the Southwestern Bell Case that prudent investment is not to be taken as the measure of value, it has never held that prudent investment may not be accepted as evidence of value, or that a finding of value is necessarily erroneous if it happens to be more nearly coincident with what may be supposed to have been the cost of the property than with its estimated reproduction cost. The single-sum values found by the Commission do not coincide either with the estimated prudent investment or with the estimated reconstruction cost.

They are much nearer the estimated original cost of the property than they are to its estimated reproduction cost. But the values found do not conform to any formula.

The general method pursued by the Commission in reaching its conclusion closely resembles that approved by the court in Georgia Railway & Power Co. *v.* Railroad Commission, 262 U.S. 625, 629-630. It appeared that the O'Fallon Railroad had been constructed long prior to June 30, 1914. The Commission had before it "the cost of reproduction new of the structural portion of this property estimated on the basis of our 1914 unit prices, coupled with the knowledge that costs of reproduction so arrived at were not greatly different from the original costs."

As bearing upon the value of those parts of the railroad's property which were added or replaced later, the Commission had the actual cost. As bearing on the then value of the railroad land, it had current values of adjacent lands. It had evidence concerning the railroad and the character and volume of its traffic, the working capital, revenues and expenses. It had evidence of increased price levels after 1914 and estimates of current reproduction costs during the recapture periods.

The carrier insisted that physically the property had appreciated more than it had depreciated; and urged the Commission to take as the basic

measure of value the "cost of reproduction new at current prices to the exclusion of everything else, or at least of everything that might tend to a lower value." (124 I.C.C. 28.) This the Commission declined to do.

It gave full effect to increased current market values in determining the value of the land. It gave to the additions and betterments made after June 30, 1914, a value approximating their cost less physical depreciation. But, in respect to structural property and equipment acquired before June 30, 1914, it declined to give weight to the evidence introduced to show current reproduction costs greater than those of 1914.

It concluded, despite the estimates of higher reconstruction costs, that, except for the additions, the actual value of this part of the O'Fallon Railroad had not increased; and it found the single-sum value for rate-making purposes in 1920 to be $856,065; in 1921, $875,360; in 1922, $978,874; in 1923, $978,246.

The Commission recognized, as stated in Minnesota Rate Cases, 230 U.S. 352, 434, that the determination of value is "not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts." Georgia Railway & Power Co. *v.* Railroad Commission, 262 U. S. 625, 630. It states that "it considered and weighed carefully, in the light of its own knowledge and experience, each fact, circumstance and condition called to its attention on behalf of the carrier" as well as the evidence otherwise introduced; and that "from this accumulation of information we have formed our judgments as to the fair basic single-sum values, not by the use of any formula but after consideration of all relevant facts."

The report makes clear that its finding was the result of an exercise of judgment upon all the evidence; that the Commission accorded to the evidence of reconstruction all the probative force to which it deemed that evidence entitled on the issue of actual value; and that it considered, as bearing upon value, not only the probable cost and the estimated reproduction cost, but also "descriptions of the carrier, of its traffic, of the territory in which it operates, its history, and summaries of the results of its operation."

The difficulties by which the Commission was confronted when requested to apply the evidence of reproduction cost can hardly be exag-

gerated. In the first place, the evidence was of such a character that it did not satisfactorily establish what would have been the current cost of reproduction during the recapture periods. During the years here in question there was practically no construction of new lines.

Index number basis of valuation

Thus, the current cost of reproduction for those years had to be obtained by using index figures as the basis for a guess as to what it would cost to build then the identical railroad. To give to such figures effect as proving what it would then have cost to reproduce the O'Fallon Railroad, it must be assumed that there had not been introduced since June 30, 1914, new cost-saving methods of construction which would overcome, in whole or in part, the effect of the higher price level upon the cost of reproducing the identical property. This, in view of its experience, the Commission properly declined to do.

In the second place, there was a lack of evidence to show to what extent, if any, higher reconstruction cost, in the several recapture periods, implied a value higher than that theretofore prevailing. The Commission believed that it could act only on proof; that it was not required or permitted to base findings on conjecture; and that to assign, under the circumstances, any weight to the evidence of reconstruction cost would be merely conjecture.

Moreover, the Commission had, through its valuation department, special knowledge of the property of this carrier. It had acquired necessarily in the performance of its many duties the general knowledge, already referred to, concerning changes in transportation conditions and of the advances in the art; and it knew how great was their effect upon the actual values of railroad property. The value of the O'Fallon Railway not having been finally ascertained under Section 19*a*, it was obliged by Paragraph 4 to utilize "the results of its investigation under Section 19*a* of this Act in so far as deemed by it available."

The evidence introduced in the recapture proceedings showed, among other things, that of the five locomotives in the O'Fallon service December 31, 1920, one had been built as early as 1874, and that their average age was 20.8 years; also that the aggregate outlays for additions and betterments in the railroad, less small retirements, had in eleven years been

only $98,148.25. The O'Fallon did not introduce any evidence bearing upon functional depreciation of the property.

The Commission may reasonably have concluded that, even if there had been introduced persuasive evidence that the cost, during the recapture periods, of reproduction new the identical plant approximated the rise in the general price level, still the actual value of the O'Fallon Railway, as it existed June 30, 1914, had not increased, because the functional depreciation plus the physical depreciation since that date counterbalanced fully what otherwise might have been the higher value of the plant.

The O'Fallon urged that its large net earnings during the recapture periods and earlier fully established a higher value, independently of the evidence of reproduction cost. This contention ignores the peculiar character of the property. The railroad, which is owned by the Adolphus Busch estate and family and lies wholly in Illinois, operates about nine miles of main line from two coal mines also owned by the Busch estate and family, to the tracks of the Terminal Company in East St. Louis.

There are twelve miles of yardage tracks, located largely at the Busch mines. While the railroad is legally a common carrier, it is actually an industrial raliroad. Ninety-nine per cent of its revenues are derived directly from the carriage of coal; and of the remaining one per cent, about half appears to come from a payment of $300 a month made by the Busch coal company for carrying its miners to and from its mines. Besides the coal from the Busch mines there is a substantial, but diminishing amount carried, under a long-time contract, from two mines located on an electric road, the East St. Louis and Suburban Railway, which crosses the O'Fallon. This coal it carries from the junction to East St. Louis. See St. Louis & O'Fallon Railway Co. *v.* East St. Louis & Suburban Railway Co., 81 I.C.C. 538. Obviously the value of this railroad property is wholly dependent upon the operation of the mines.

How long the four mines will continue to be operated was and still is entirely uncertain. Their product is subject to the competition of 221 other bituminous coal mines in Illinois. These, which are all located on other railroads, enjoy low rates to St. Louis.[1]

[1] See Perry Coal Co. *v.* Alton & Southern Railroad, 5 Illinois Commerce Commission 461.

The vicissitudes of coal mining, the diminishing use of coal since the war because of increased fuel efficiency, the competition of oil as fuel, and the growing use of hydroelectric power are matters of common knowledge; as are the diminishing operations during recent years of the Illinois coal mines as compared with the mines in non-union territory. Moreover, the decline in the volume of traffic, the reduction in coal rates (made by Reduced Rates, 1922, 68 I.C.C. 676), and the growing expenses of the carrier due to increased pay roll, were put in evidence by it.

In view of these facts, the Commission was clearly justified in refusing to find that the Railroad had a higher value than in 1914, although the net earning as reported showed a return for the earlier period averaging $7\frac{1}{2}$ per cent upon the amount claimed as reproduction cost.

This Court has no concern with the correctness of the Commission's reasoning on the evidence in making its findings of fact, since it applied the rules of substantive law prescribed by Congress and reached its findings of actual value by the exercise of its judgment upon all the evidence, including enhanced construction costs.[1] We must bear in mind that here we are not dealing with a question of confiscation; that we are dealing, as was pointed out in Smyth *v.* Ames, 169 U.S. 466, 527, with a legislative question which can "be more easily determined by a commission composed of persons whose special skill, observation and experience qualifies them to so handle great problems of transportation as to do justice both to the public and to those whose money has been used to construct and maintain highways for the convenience and benefit of the people."

Mr. Justice Holmes and Mr. Justice Stone join in this opinion.

[1] Virginian Railway Co. *v.* United States, 272 U.S. 658, 665–666; Assigned Car Cases, 274 U.S. 564, 580, 1927.

XXXIV. THE INTERNATIONAL CARTEL MOVEMENT[1]

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The unusual interest aroused by international cartels and other forms of economic activity of international scope may be attributed to different factors. In the first place, there is always an interest in movements involving large amounts of capital; there is a dramatic quality about them that gives them a prominent place in the newspapers, where they attract the attention of many readers whose particular interests have little in common with such economic phenomena. In the second place, since the war the man in the street has found it ncessary to pay attention to international economic movements and the press has tried to satisfy that need. These two factors might explain the general interest, but are insufficient to account for the close attention given to the subject by business men and students of international politics. This must be attributed to the general realization that the war has brought about fundamental economic changes, particularly as regards the respective positions of the various countries in the economic hierarchy, and has also served to accelerate certain movements that were in evidence before the outbreak of the war. The movement toward industrial amalgamations, in its most comprehensive significance, is looked upon as one of the outstanding features of post-war economy, and on that account is receiving an unusual amount of attention as well as misinterpretation.

The attitude of the average American business man toward international cartels, based to a large extent on press reports, is generally influenced by a tacit assumption that such organizations are aimed primarily at the American producers or consumers and represent the alleged combination of Europe against the economic hegemony of the United States.

[1] Adapted from *Trade information bulletin no. 556* of the Bureau of Foreign and Domestic Commerce, U.S. Department of Commerce, 1928.

The tendency toward amalgamations noted in post-war industrial Europe and the actual organizations of international cartels and closer combinations in such outstanding products as steel, rails, rayon, aluminum, not to mention the rumors involving synthetic nitrates and other chemicals, have attracted considerable attention in the United States and have perhaps served to magnify the real scope of the movement. There has also been noted a certain looseness in terminology, to be expected in popular discussions of economic subjects, that is likely to give an erroneous impression of the economic significance of the cartel, a name applied rather indiscriminately to practically all forms of industrial combinations in Europe. This report has been prepared with the object of presenting to the American business men, interested in broader economic movements, an account of the progress of international industrial amalgamation, in its broadest form, with a certain emphasis on the development of national combinations in Germany, in view of the leading position assumed by that country in the organization of the international cartels.

Background of the international cartel movement

As has been pointed out by numerous writers on the subject, the international cartel is not primarily a post-war development. Liefmann, in one of his earlier works on industrial combinations, appearing in 1897, enumerates not less than forty such orgainzations, covering many chemical, iron and steel, and glass products. Most of the pre-war cartels were naturally broken up by the war, but there has been a rapid resumption of international industrial relations since the armistice, which seems to indicate a reaction from the extreme economic nationalism of the war period. The new movement derives an added significance from its new environment, in which economic developments — especially of an international scope — attract far more attention than in the pre-war era.

The war with its emphasis on the production factor, the post-war period with its financial demoralization, the attempts to achieve political ends through economic pressure, and the reparations problems have all served to impress upon the man in the street the importance of economic relations of countries and continents; they have, we might

say, forced him to take a course in the principles of economics. The press, naturally, has responded to the new interest and is devoting a good deal of space to such events, with the result that the general public is gradually beginning to think in terms of broad industrial movements, transcending political boundaries, and shaping political events. We are developing a popular form of economic interpretation of current history.

It is rather curious to note that the interest of the American student in cartels as a form of international industrial combinations is beginning to revive at a time when many of the European economists are inclined to regard the cartel as a somewhat obsolete form of organization and are concentrating their attention on the closer combinations, like the fusions and mergers, which are gradually becoming the most influential factors in the post-war economy of Europe. While in the international phase of the concentration movement the cartel is still the most common form, there is evidence that even there the influence of the big domestic combinations is becoming very strong and that the further development of the international cartel is most likely to involve industries with a high degree of concentration in the domestic field.

The post-war economic environment is in some essential respects far more favorable to the development of international industrial combinations than the pre-war period, in spite of the obstacles to international economic action still to be found in the political heritage of the war. As a counterbalance to the latter we must consider the fact that the upheaval created by the violent separation of Germany from the economic life of Europe during the war and the various decentralizing tendencies developed as a result of the new political alignment has now given way to the realization that there is a common European, or at least Continental, problem of economic reconstruction which requires for its solution a greater degree of coöperative action than characterized the economic life of Europe before the war. The fundamental weakness in the present economic structure of Europe is the discrepancy between potential productive capacity and purchasing ability. The tremendous development of industrial equipment during the war and the inflation periods, combined with the progress in industrial technique, is confronted by an impoverished and heavily taxed population, incapable of offering an

effective demand for more than a fraction of the potential output, while the pre-war non-European markets have lost some of their importance for European producers, either through an increase of domestic production or on account of the competition of industrial countries like the United States and Japan. This discrepancy is accentuated by the nationalistic commercial policies, due partly to the war necessities and the chaos of the reconstruction period, and partly to the striving for economic self-sufficiency, especially by the newer states of Europe. Then we have the currency depreciation with its influence on competition; the practical withdrawal of continental Europe from the long-term investment field, which before the war constituted a very important factor in international trade; the shift in the credit center from Europe to the United States; the rise of new industries and the change in emphasis on some of the old (rayon, synthetic nitrate, automotive, coal, cotton, silk, shipbuilding, etc.). All these factors — some of them, perhaps, of a temporary nature — confronting post-war industry inevitably suggested combined action as a possible solution, especially since the country that was most anxious to recover its pre-war economic position has had most experience with industrial cartels and had been the leading spirit in most of the international cartels in existence before the war.

Economic reasons for international combinations

The main object of an international cartel, whether it is restricted to a division of markets or goes into limitation of production and fixing of prices, is to regulate competition. A country like Germany, with its extreme dependence on foreign trade and the temporary drawback of a stabilized currency, naturally finds it absolutely essential to come to some sort of an understanding with its chief competitors, some of whom are favored by currency depreciation; hence its initiative in bringing about the formation of the continental steel cartel and the further efforts to form international agreements in some other branches of the iron and steel industry as well as in chemicals.

There is also another phase of the movement that should be pointed out. Certain writers on European economics and politics are inclined to consider the post-war developments in international combinations as preparing the way for a European customs union. According to their

interpretation, the present industrial situation on the Continent, combined with certain political factors, would make it practically impossible to establish such a union, with its free-trade implications; the shock would be too great for Europe in its weakened condition. An international arrangement along the lines of the continental steel entente, it is claimed, would serve to mitigate the rigors of free trade by assuring each of the participating countries its domestic market and also by reducing the competitive capacity of the more aggressive members through the payment of fines for production above the assigned quota. The fixing of prices for all participants, which is a logical development in such combinations, would also add to the equalization of competition. Thus, they argue, the international cartel, by eliminating the tariff factor or at least reducing its importance, is contributing to the working out of the plans for a European customs union.

Germany's prominence in international cartel movement

One of the most significant features of the whole movement for international economic agreements is the prominent part played by Germany in initiating and carrying on the negotiations. This position is quite in keeping with that country's preëminence in industrial development on the Continent of Europe and its traditional attitude toward industrial amalgamations; it is, none the less, a remarkable demonstration of the restoration of national economic prestige, as well as a striking confirmation of the influence of economic factors in overcoming political antagonisms.

Without attempting to measure accurately the influence of each separate factor in accounting for Germany's leadership in the international cartel movement, it may be stated that its experience in the development of domestic cartels should receive a good share of the credit. It is quite obvious that, if an international cartel is to achieve its primary function of regulating international competition, it must provide for some form, direct or indirect, of restriction of output, prices, or markets, singly or in combination. This, in turn, implies a certain degree of development in domestic amalgamation to assure compliance with the terms of the international agreement. Germany, with its most highly developed cartel system, is naturally in the best position to take the initiative in extending the movement beyond its own boundaries.

Essential factors in cartel organization

Although it would be very difficult to lay down a precise formula of the factors essential to the formation of an industrial agreement of the cartel type, there are certain features that must be present in an industry in order to make it adapted to cartelization. It is quite clear, for instance, that an industry in which human skill is the chief factor is not a good subject for combination, because such an industry is generally carried on on a small scale, has a product varying greatly in quality, and requires a comparatively small investment of capital; a cartel would, therefore, find it practically impossible to protect its members from the competition of the newcomers who might be attracted to the industry by the more remunerative prices achieved through the very organization of the cartel. Furthermore, in an industry of this kind, there is not a great pressure for the organization of a cartel, as it is not likely to develop any serious overproduction, owing to limited capital resources. On the other hand, industries lending themselves to mass production and the employment of large capital, overproduction, and consequent price cutting have in many cases given rise to cartels, as may be seen from the history of the cartel movement in Germany and the recent revival of the cartel movement on an international scale.

Since the principal object of a cartel is to restrict competition, so as to enable the participating members to obtain remunerative prices for their products, it is quite evident that a large-scale industry based on natural resources lends itself to cartelization or more intimate forms of amalgamation, the control of the supply of raw material preventing the development of outside competition. The same applies to limiting factors of an artificial character, like patents or preferred positions in regard to transportation or credit. Thus we find that the earliest German domestic cartels are to be found in such industries as coal, iron and steel, potash, bismuth, etc. At present, the German industries most prominent in the cartel movement are the mineral, depending basically on natural resources, and the chemical, depending on a combination of natural resources and patents. It is not meant, of course, to convey the impression that the cartel movement is entirely determined by the above-mentioned factors, since we find numerous cartels in industries beyond their influence, like the textile, pottery, brewing, etc. There is no doubt, however,

that it is the large-scale industries, controlling raw materials or other essential, technical, or financial resources and with large amounts of fixed capital, that have taken the lead in the cartel movement, both nationally and internationally, not only on account of their economic strength and prestige, but also because they had more at stake in trying to escape from unrestricted competition, and, perhaps also, because they lacked the flexibility necessary for scaling down their production to the demand.

The modern cartel is fundamentally connected with the mass production development in industry. It came into existence primarily to solve the problem of overproduction and resulting price cutting, which was an inevitable consequence of the first stages of modern industry. The cartel problem has its roots in modern industry, with its highly developed and expensive technical equipment, wide distribution of its products, and accumulation of stock. The task of adapting production to consumption becomes more difficult as industrial units grow in size and complexity; our elaborate distribution organizations and the whole system of stimulating demand, which form an integral part of our industrial system, is an indication of the difficulties involved. It may, therefore, be said that the cartel, or any other large-scale industrial combination, is an attempt to enable modern industry to adjust its production to demand and to substitute market control for the intimate familiarity with the market capacity enjoyed by the individualistic producer during the early phases of industrial development. The cartel also marks a certain stage in economic psychology when producers begin to realize the futility and wastefulness of cutthroat competition and when the corporate form of business, involving responsibility to numerous stockholders, interferes with the full application of the law of the survival of the fittest.

Definition of cartels

Before entering upon a detailed description of the cartel movement in the various European countries and its extension into the international field, it might be advisable to give a definition and a description of the various classes of cartels. Although it is true that the international cartel has so far confined itself to a few simple forms, it has adopted some of the provisions of its national prototypes, and a detailed

description of the latter might assist in building up the proper background.

We may accept for our purposes the definition given by Grunzel,[1] as a voluntary association of independent enterprises with common interests and aims for the joint regulation of production and distribution. It is believed that this definition is comprehensive enough to cover all types of cartels. Attention should be called to the fact that a cartel presupposes complete independence of members, except as regards the particular objects involved in the cartel agreement; a combination involving any control of one member by another cannot be classified as a cartel, but belongs to the more intimate forms of combinations, such as mergers, trusts, combines, etc. This distinction should be kept in mind, because, as will be brought out in the course of the discussion, many cartels include in their membership not only individual enterprises but also combined groups, such as *Konzerne*, *Fusionen*, etc., which are exercising a strong influence on the policies and tendencies of cartels. Another feature of a cartel is that it is monopolistic in its essence — i. e., it tries to embrace the entire industry or trade — so as to present a united front to the consumer of the finished product or the seller of the raw material or semi-manufactured product, according to the object of the organization.

Classification of cartels

Owing to the great interest in the subject of cartels, especially on the part of the German economists, there has developed considerable diversity in their classification and refinement in nomenclature. Some have divided them into two broad classes, according to whether they deal with the control of the marketing of the finished product or with the purchase of raw material, labor, etc. Another classification, the one adopted by Liefmann,[2] divides cartels into three classes, according to territorial, price, or production control. In view of the fact that this report deals primarily with international cartels, which have not been in existence long enough to develop all the refinements and ramifications of their domestic prototypes, it will be sufficient for our purpose

[1] Josef Grunzel, *Über Kartelle*, Leipzig, 1902.

[2] Professor Liefmann, *Kartelle, Konzerne und Trusts*, 1927.

to consider only the organizations dealing with the control of the marketing of the finished product which in their international phases have not gone beyond the limits implied in the Liefmann classification. It should be pointed out that some cartels embody the features of more than one class.

Territorial cartels (Gebietskartelle)

Territorial cartels in general try to prevent overproduction by restricting or eliminating competition within certain territories — either parts of a single country, in the case of a national cartel, or a whole country, including in some cases colonial markets, in the case of international cartels. In some cartels of this character, the restriction is sometimes carried to the extent of recognizing the right of a producer to certain customers and of protecting him against the attempts of his competitors to take them away by means of price reductions or similar concessions; this is frequently the case in the German brewing industry. International territorial cartels generally reserve domestic markets to producers, unless the domestic production is manifestly insufficient or where special circumstances make it necessary for one country to admit the products of another member of the cartel, as in the case of the recent continental steel cartel, where Germany undertook, through special arrangement with France, to admit fixed amounts of steel from Lorraine, Luxemburg, and the Saar.

Price cartels

Price cartels cover the type of association that restricts itself to price fixing, without interfering with production; they are easy to organize on account of their simplicity and universality of appeal, but are rather difficult to maintain, on account of the fact that since they ignore conditions of credit, delivery, etc., they offer many opportunities for evading the price restrictions; they also attract a good deal of adverse criticism by their dumping practices. Price cartels are naturally limited in scope, as they cannot be used in the case of specialized commodities involving a considerable range in prices. There is considerable variation in the methods of fixing prices, supervising sales, assessing fines, etc. Although the impulse to restrict competition through fixing of prices is quite easy to

understand and price cartels are most frequently resorted to, they are not well adapted to meeting conditions developed as a result of a more or less prolonged period of overproduction, with its concomitant accumulation of stocks and long-term commitments to deliver at low prices. In such cases the most important thing to accomplish is to restrict production and the production cartel is generally regarded as the most logical solution. For our purpose we might include in the category of price cartels the so-called *Konditionenkartelle*, dealing with terms rather than prices; these organizations, have for their chief object to protect producers against excessive demands of the consumers in the way of credit, delivery, packing, and similar trade abuses, which in the United States are sometimes dealt with by trade associations; some students of the cartel movement do not regard such organizations as cartels, but rather as trade associations, since they do not involve the element of monopoly.

Production cartels

The production cartel has for its object the restriction of production and is, therefore, more fundamental in character than the price cartel, and better adapted to deal with overproduction. The curtailment of production may be carried through by different means, such as cutting down of working equipment, shortening the working day or week, prohibition against opening of new plants, joint acquisition of plants for purpose of closing down, etc. The object of a production cartel is, naturally, to increase prices indirectly through restriction of output, but since they do not aim at fixing of prices they are more flexible than the price cartels and easier to administer. On the other hand, as they do not hold out the promise of a definite price increase and demand the sacrifice involved in curtailment of production, they are more difficult to organize than price cartels. The fixing of quotas for the various members of a production cartel is an extremely complicated task, as it is almost impossible to carry through a uniform rate of curtailment, regardless of extent of overproduction, productive capacity, general efficiency, and financial strength of the individual plants. This problem is particularly complicated in the case of international production cartels and generally leads to prolonged negotiations, as in the case of the continental steel cartel where a change in the quota basis had to be made in favor of Belgium, on

account of diminished production caused by a strike. The problem of fixing quotas for the subsidiary steel product cartels still remains unsolved. Production cartels generally provide penalties for overproduction and indemnities for underproduction.

There is one more form of cartel that needs mentioning in view of its growing importance in the international cartel movement, and that is the patent cartel. This form of organization is based on an agreement for the pooling of patents, with certain conditions attached to the granting of a patent license, such as limitation of territory, fixing of price, etc. The outstanding example of this kind of cartel in the international field is the international electric bulb cartel, organized in 1925.

As pointed out above, there are many variations and refinements in cartel structure, especially in Germany where the cartel has attained its highest development, and the forms described in the preceding pages should be regarded merely as covering the most important categories essential to an understanding of the development of the cartel in its international phase.

Administration of cartels

The method of administration varies in accordance with the stage of development of the cartel involved. In the case of cartels providing for a mere restriction of territory, price, or output, the supervision may be in charge of a board of trustees selected from the membership; in the case of cartels with a large membership a special committee may be found necessary. In the case of the more highly developed organization involving centralization of sales, distribution of orders, or even distribution of profits (*Verteilungskartelle*), special organizations are required to perform the various functions; these may take the form of separate corporations, organized for that purpose; in some cases these functions may be intrusted to individuals, commercial houses, or banks. This form of organization is best adapted to mass products and is frequently found in the coal and iron and steel industries. As pointed out by Liefmann, the Rhenish Westphalian Coal Syndicate and the *Stahlverband* are merely the sales cartels of the coal-mine owners and steel producers who have obligated themselves to sell only through those organizations — and that is what constitutes the cartel. Some of the more highly

developed cartels provide a most elaborate system of allocating among their members the amounts to be offered to consumers and in some cases even go so far as to decide which of the members is to submit the lowest bid on contracts. In the more highly developed price cartels providing for a division of profits according to participating quotas there is an arrangement by which the members pay into the common treasury the difference between an accepted production cost and the fixed minimum price; this method takes away the temptation to sell below the fixed minimum price, but, on the other hand, offers an inducement to sell above the minimum level, through a change in quality or sales methods. The most highly developed profit-pooling cartels provide a subsidiary corporation that takes complete charge of sales, the members being obligated to surrender their product at a fixed price. This form is regarded by Liefmann as the highest development of the cartel, measured by the degree to which the constituent members have surrendered their independence of action; the individual ownership of plants is the only feature that separates this category of cartels from trusts.

Significance of the post-war movement

The chief difference between the pre-war and the post-war cartel developments in the international field is that while before the war it was essentially an economic movement, resorted to primarily for the purpose of dealing with the difficulties of a particular industry, in its post-war phase it is looked upon by its chief exponents as a means for readjusting the whole economic structure of Europe, if not of the whole industrial world, and to put an end to the competitive era by inaugurating a system of "managed" production and distribution. Whether this view, entertained by some who even go to the extent of forecasting a condition under which tariffs would be replaced by cartel agreements as protectors of domestic markets, is justified by the recent progress of the movement may be doubted; it is undoubtedly true, however, that the post-war international cartel movement is taken much more seriously and has more political attributes than its predecessor before the war.

Among the numerous international cartels renewed or organized since the war, the Franco-German potash agreement and the continental steel entente might be taken as the outstanding illustrations of the inter-

national cartel in its new environment. The difference between the two cartels is obviously very considerable: One deals with a commodity practically monopolized by two countries, while the other covers one of the most competitive products in the world; in the case of one, government intervention is of long tradition, while in the other private interests have had exclusive control. In spite of these outstanding differences, however, both organizations have been considerable factors in the readjustment of political as well as economic relations between France and Germany and have, therefore, attracted unusual attention as examples of the new method of regulating competition in the post-war world.

The potash cartel

The Franco-German potash agreement, in addition to marking one of the earliest manifestations of economic solidarity between the two countries since the outbreak of the war, derives also considerable interest from the fact that in both countries the governments are very intimately connected with the domestic phases of the industry and, therefore, have taken a most active part in the conclusion of the international agreement. It may be safely said that the potash agreement is probably the most "political" of the existing international cartels, in view of the fact that on the French side the Government is by far the predominant factor, in the actual ownership of the mines, while on the German side there is a long tradition of government intervention in the industry, in addition to some actual ownership of properties. If we add that the two countries control, for the present at least, the world output of potash and that the separation of Alsace was for a time regarded as marking the end of the German potash monopoly, it will be readily understood why the conclusion of the agreement between the two countries in 1924 attracted an unusual amount of attention.

The Franco-German potash agreement is not a reconstructed cartel, since before the war Germany had a practical monopoly and there was no necessity for an international cartel in the potash industry. In view, however, of the predominant position of Germany in the international potash situation, it might be of some interest to trace briefly the development of the German potash cartel prior to the formation of the Franco-German alliance.

Pre-war period

Although the importance of potash was recognized early in the sixties, it was not until 1876 that the industry had reached sufficient importance to justify an agreement on prices between the mine owners, the states of Prussia and Anhalt, and the refiners. With the opening of new mines by private concerns, a new agreement was concluded in 1879, covering the four carnalite mines, two state-owned and two private, covering the amounts of raw salt to be furnished to the refiners, the quotas for the participating mines and the prices to the refiners. The kainite producers also entered into an agreement in the following year. Both agreements soon broke down under competition from new mines, but were reorganized in 1883 and 1884 for carnalite and kainite, respectively, the new organizations taking in the new producers. The new agreements were to run until 1888, and during this period the industry underwent considerable integration, the private mine owners putting up their own refineries or becoming affiliated with existing refineries, so that the fixing of the price to the refiners lost a good deal of its importance. The state of Prussia went into refining in 1887, to overcome its disadvantage as compared with the private producers, and probably, also, to strengthen its position for the renewal of the cartel. In 1888 a series of seven agreements for a period of ten years was concluded, covering the producers of potash salts of all kinds, the affiliated and independent refiners, and fixing the prices of salts to refiners as well as to direct buyers of salts for use in a crude state. The interests of Prussia and Anhalt at that time were quite considerable, the joint quota being about 29 per cent for carnalite and 50 per cent for kainite within certain production limits.

There was a joint selling organization and prices were fixed by a board representing the producers, but Prussia reserved the right to fix prices below the minimum level for salts used in agriculture in a crude state. Foreign prices were also fixed by the cartel, and in a number of countries the cartel was represented by its own agents. The joint selling organization, known as the *Verkaufssyndikat der Kaliwerke*, was renewed in 1898, upon the expiration of the ten-year term, at first until 1901 and then until the end of 1904, when it was succeeded by the new *Kalisyndikat*, organized for the period of 1905 to 1909. The continuous cartel control, while it served to eliminate competition in prices, also had a most stimulating

effect on the industry as a whole, so that during the period of 1905 to 1908 the cartel membership increased from thirty-one to fifty, with a considerable reduction in the ration of output to plant capacity; it was estimated by some authorities that in 1908 the potash demand could have been supplied by from six to ten out of the fifty plants in actual operation. This tendency toward potential overproduction persisted, in spite of the increase in foreign demand and the various attempts to discourage the opening of new mines and to eliminate the speculative phase of the industry. The cartel benefits were diminishing with the decrease in quotas, and there developed a centrifugal tendency on the part of the stronger members, anxious to weed out the weaker concerns by reduction of prices, which might have led to a collapse of the cartel, if it had not been for the influence of the participating states. Under those conditions, the chances for the renewal of the cartel in 1909 were not very favorable, but a temporary extension for six months was decided upon just before the expiration of the old agreement.

The difficulties of coming to an agreement with the Schmidtmann group and the defections resulting in contracts for sale of potash to American consumers at cut prices, as well as the acquisition of control over a certain amount of production by American interests, led to the formation of a temporary arrangement by the interests, opposed to the Schmidtmann group and to the introduction of a Federal bill for the strict control of the potash industry, as regards production and sales for a period of twenty years. The original proposal contained provisions for the levying of export duties and production taxes, but these had to be given up for reasons connected with the foreign relations of the country and the effect on German agriculture, respectively. This bill served as a basis for the potash law of May 25, 1910, which provided for the fixing of total production quotas, ratio between amounts for domestic consumption and foreign, and allotment of quotas among the participating works by a special committee of seven members, of whom three, including the chairman, were to be appointed by the Chancellor, the others by the mine owners. Prices were to be fixed every five years by the Federal Council upon consultation with the potash producers and consumers. There was a provision for the admission of mines brought into production after the passage of the law and also for the transfer and exchange of quotas. The

new cartel organized under the potash law comprised sixty-five members, but did not include the Schmidtmann group, the American-controlled mine or the Alsatian Amelie mine, which, being subject to the provisions of the potash law, could not offer any effective interference with the cartel.

One interesting provision of the law was intended to protect the interests of labor and provided that in case of a decrease of wages for a certain class of work below the average of 1907–1909 and a lengthening of hours of labor beyond those prevailing in 1909, the quota of the mine involved was to be curtailed by at least 10 per cent. This attempt at balanced paternalism is also of interest in connection with the post-war potash legislation under the socialization regime, which will be discussed later.

The potash law of 1910 was not working out very successfully as a barrier against expansion of the industry. The number of mines increased from 68 at the time the law went into effect to 168 by the end of 1913, while production increased only about 20 per cent, so that the mines were working at a considerably decreased capacity ratio. Among the attempts to strengthen the law may be mentioned the proposal for rendering more difficult the allotment of quotas to new mines and the separation of new mines from the old for quota purposes; there was also a proposal for an agreement among the members of the cartel to abstain from opening new mines. All these proposals were, naturally, abandoned with the outbreak of the war.

Socialization period

The potash industry was one of the few singled out for "socialization" under the general socialization law of March 3, 1919, passed under the socialistic regime following the revolution. The potash law of April 24, 1919, may be regarded to some extent as a modification of the law of 1910 in the direction of increased control by the state and labor. Under the new law the management of the industry as a whole was placed in the hands of a council (*Reichskalirat*) of thirty members, with the majority nominated by the government from certain prescribed classes, including labor, consumers, dealers, and technical personnel, as well as the producers and the state. Subcommittees are provided for dealing with certain phases of the industry, such as the interests of agriculture, wages, quotas, etc. The powers of the council are very great, since it deals not only with

the general policies of the cartel, but also with restriction or expansion of production, domestic prices, and wages.

The structure and functions of the cartel proper are specifically prescribed by the potash law. All producers are obligated to turn over their output to the syndicate for sale; the same applies to foreign potash, which only the syndicate can import. In order to discourage further expansion of the industry, it is provided that in the case of the creation of new units by subdividing larger works belonging to the cartel, even if expanded by the addition of newly acquired fields, the granting of a quota is contingent upon the possession of deposits capable of an annual yield of five thousand metric tons of pure potash for a period of fifty years and of technical equipment sufficient to assure the production of raw salts corresponding to its quota. Quotas are revised every five years. There are provisions for transfer as well as exchange of quotas, but transfers involving more than half of the quota require the consent of the central authorities of the state involved. The cartel prices for foreign consumption must not be below the domestic prices fixed by the council, which is contrary to the policies adopted by most of the other national cartels involving export commodities and is probably due to the influence of the agricultural interests as well as to the comparative lack of competition.

The position of the German potash industry after the armistice was rendered very difficult by the currency demoralization, the serious competition of the Alsatian mines and the menace of other sources of competition, and the agitation against the cartel restrictions carried on by the Wintershall combination, controlling about 40 per cent of the German production and very anxious to reap the full benefit of its rich deposits and mass production methods. The latter factor was for a time regarded as offering a serious menace to the very existence of the cartel, which was compelled to liberalize its credit terms to German agriculture under pressure from the Wintershall combination. The criticism that the whole industry was being dragged down by the comparatively unproductive superfluous mines was met by the amendment of October, 1922, to the potash law, which made it possible for such mines to shut down and retain their quotas until 1953. This provision resulted in the transfer of their quotas to the more productive units, sometimes at rather high prices, thus facilitating the concentration of the industry in the hands

of the stronger combines. This, however, did not solve the problem of potential overproduction and consequent low ratio of production to capacity. The cartel was still confronted by the conflicting problems of carrying out the original intent of the potash law of 1919, as regards the protection of the weaker members, satisfying the demand for cheaper potash on the part of German agriculture, resisting the attacks of the Wintershall group desiring greater freedom of action, and enabling the German potash producers to meet the formidable Alsatian competition. The position of the Alsatian producers was favored by the higher yield of the deposits, and, what was most important, they carried less dead weight, the Alsatian industry being represented by 17 plants, as contrasted with the 211 German, of which only 130 were in full operation in 1923. The intensive production of the Alsatian mines, and particularly the disproportionate increase in exports, was ascribed by the German students of the subject to the artificial stimulus of government subsidy and was not regarded as a substantial economic development. Whether this criticism was justified or not does not alter the fact that Alsatian competition had reached formidable proportions, the exports having increased from about 45,000 tons of pure potash in 1919 to 172,500 tons in 1923, while production for domestic consumption had increased only from 47,000 to 81,000 tons during the same period.

Franco-German agreements

It was reasonable to assume that, given the importance of the product involved, the direct interests of the two governments in the industry, the monopoly traditions of the industry, and the pressure from the German producers for some solution of the problem of Alsatian competition, a way would be found to bring about an agreement between the two countries, in spite of the unfavorable political factors.

After several years of intermittent negotiations, made extremely difficult by the unfavorable political situation, and perhaps also by the unwillingness of the cartel to grant the Alsatian producers an adequate quota, an agreement was finally concluded on Aug 14, 1924, between the German potash cartel and the *Société Commerciale des Potasses d'Alsace*, the selling organizations of the Alsatian producers, for the division of the most important foreign potash market, the United

States. There are a number of very interesting features connected with this arrangement, besides its political significance as marking a turning point in the economic relations between the two countries involved.

The fact that during the period of 1919 to 1923 the exports of Alsatian potash to the United States had increased almost tenfold, from 5,450 to 50,580 tons of pure potash, considered in connection with the choice of the American market as the basis for the first potash agreement between the two countries, would seem to justify the supposition that the intensive French selling campaign was inspired not only by the desire to gain a foothold in a profitable market but also by tactical considerations calculated to give the Alsatian producers an advantageous position in the coming negotiations with the German cartel. Another significant fact is that the quota obtained by France, 31.2 per cent of the deliveries to the American market (taking into consideration the concession obtained by the cartel regarding the supplying of sulphates), equivalent to 68,000 tons of pure potash on the basis of the 1923 deliveries, was considerably above the amount actually shipped by France in 1923, which was a clear indication of the anxiety of the cartel to come to terms with the Alsatian producers to whom they had originally offered only a 15 per cent quota. It is interesting to note that the same willingness to make concessions in order to resume economic relations with the former enemy countries characterized the attitude of the German steel producers in the negotiaitons leading to the formation of the continental steel entente, which will be discussed later.

The first agreement, which was to run for three years, provided, in addition to the quotas for the German and Alsatian producers, a fixed price for potash to American consumers (later extended to Sweden); there was also a provision whereby in case of inability on the part of one of the parties to the agreement to deliver its full quota, the orders were to be filled by the other partner upon the payment of 15 per cent of the value of the amount involved. It may be assumed that the last provision was inserted with an eye to the eventuality of the Alsatian producers being unable to supply their full quota. Although the agreement was on the whole well received on account of its political significance, it was not altogether satisfactory to the stronger members

of the *Kalisyndikat*, who felt able to meet the Alsatian competition if given a free hand and considered the high-quota concession to France as a price paid for the protection of the weaker units in the German cartel.

A further step toward the restoration of the potash monopoly was taken in May, 1925, when a provisional agreement for the division of the world market between France and Germany on the basis of 30 and 70, respectively, took the place of the agreement of 1924, which dealt only with the United States. The provisions of the new agreement were more comprehensive and included a joint-selling and propaganda organization. The German domestic market was reserved to German producers and the French and French colonial markets to Alsatian producers.

The agreement of 1925, which was to run only for one year, should be regarded merely as the forerunner of the more permanent agreement of April 10, 1926, with effect from May 1, 1926. The new agreement is to run for ten years, with the option of denunciation, on one year's notice, after the expiration of the seventh year and automatic renewals for five-year periods after the expiration of the original term, in the absence of one year's notice of denunciation. Although the basic quota of 70 for Germany and 30 for France, exclusive of consumption in domestic and colonial markets, is retained, certain concessions have been granted to Alsatian producers of a more or less problematic value, depending on the success of the joint campaign for increased consumption of potash. All sales above 840,000 tons of pure potash, which is expected to be attained, theoretically at least, at the end of the fourth year, are to be divided equally between the two countries, instead of on the basis of 70 : 30. When an annual sale of 825,000 tons is reached, the Alsatian producers are to be granted an extra quota of 3,000 tons, while in the case of failure to attain the limit of 840,000 tons at the end of the fourth year an extra quota of 8,000 tons is to be granted to the Alsatian producers in the fifth year, this quota to include the 3,000-ton bonus that may be due in the same year for the sale of 825,000 tons. If the amount of 840,000 is not exceeded during the fifth year, the highest annual combined sales during the five-year period is to be taken as the maximum limit for the ratio of 70 : 30, all sales above that to be divided equally between the two participating countries.

In view of the fact that at the time of the conclusion of the agreement the combined potash exports of the two countries were only about 600,000 tons of pure potash, it is quite evident that the realization of the quota concessions by the Alsatian producers will depend primarily on the increase in potash consumption in foreign countries. The German producers point to the agreement as an indication of the moderate-price policy to be pursued by the combination. The agreement leaves the fixing of prices, as well as methods of control, to future negotiations, but there is a provision to the effect that the prices should be fixed at a level calculated to promote the consumption of potash. In order to economize in the distribution costs, it is provided that there should be established joint selling organizations in the various markets and also that orders may be exchanged between the producers of the two countries involved with a view to saving in freight, etc. The provision for the compensation of 15 per cent for failure to deliver full quota within a certain time limit, originally embodied in the agreement of 1924, has been retained. An interesting feature of the agreement is presented by the fact that while the direct party on the German side is the *Kalisyndikat*, in the case of France specific mention is made, not only of the *Société Commerciale des Potasses d'Alsace*, the selling organization for all Alsatian producers, but also of the owners of the French mines — i. e., *Mines Domaniales de Potasse d'Alsace* — for the state, and *Mines de Kali Ste Thérese*, the only private producer. This was done for the purpose of assuring the life of the agreement in case the *Société Commerciale* should be abolished; the *Kalisyndikat*, on the other hand, is based on a specific provision of the German potash law of 1919, and the individual producers are bound by the agreement as members of the *Syndikat*.

Continental steel cartel [1]

The continental steel cartel, while differing fundamentally from the Franco-German potash combination, is in some respects a more significant post-war development, as it aims to readjust one of the most basic industries of the world and one of the most affected by the economic and political consequences of the World War.

[1] This discussion of the Continental steel cartel originally appeared as an address by the author before the Academy of Political Science.

It would be difficult to choose a commodity more significant and better adapted to serve as a basis for resumption of international industrial agreements than steel. This choice could be justified on a number of grounds, of which we might mention the most important.

On account of the tremendous military importance of steel, the European steel industry underwent an enormous expansion during the war, and a corresponding deflation after the armistice, except in the case of Germany, where the currency depreciation and the desire to replace the Lorraine plants were responsible for the construction of additional equipment.

The largest producer of steel in Europe, and the second in the world, was subjected by the Versailles treaty to territorial losses that were expected to undermine the foundations of its iron and steel industry.

France, a comparatively unimportant factor in the steel export markets prior to the war, not only acquired very extensive mines and steel plants, but also became a very large exporter, owing to a considerable extent to currency depreciation, a temporary advantage which Germany, with its stabilized currency under the Dawes plan, could not overcome. The currency depreciation factor also served to intensify the competitive capacity of Belgium.

Though the enormous increase in the steel production of the United States cannot be regarded as a direct incentive to the formation of the steel cartel, it is safe to assume that it has had a certain psychological effect, not only as a striking evidence of the shift in industrial supremacy, but also as an indication of the potential strength of American competition in the export field. The fact that the growth of the American steel industry was accompanied by a certain decline in the British industry, would naturally serve to accentuate the need of coöperation to protect the position of Europe in the industrial world. If we want to depart from the purely economic field, we might call attention to the political importance of the commercial treaty between France and Germany, and the part played by the steel cartel in paving the way for such a treaty.

Background of the cartel

The official text of the agreement serving as a basis for the international steel cartel gives clear evidence of the complicated problems involved and

includes so many finely balanced provisions and reservations as to throw some doubt on the permanence of the organization. The adjustment of the quotas, the fixing of fines and indemnities, the numerous provisions for denunciation, would all seem to mark it as a very complicated compromise, the result of long drawn-out negotiations. A brief description of the background and environment of the negotiations will confirm that impression.

It is safe to say that the cartel owes its existence primarily to the pressure of Germany, and its provisions bear a strong imprint of German influence. Though it is continental in its present scope, and offers certain advantages to the other participating countries, Germany's desire to recover its position in the steel industry and to restore the balance so rudely disturbed by the separation of Alsace-Lorraine, the change in the customs affiliations of Luxemburg from Germany to Belgium and the temporary separation of the Saar, were undoubtedly the determining factors in the organization of the cartel. All these factors should be considered, not only from the standpoint of their effect on Germany, but also on France and Belgium.

When negotiations for the international cartel were begun in 1925, the world steel situation was radically different from what it was in 1913. While the estimated world production had increased from about 78,000,000 to 89,500,000 tons, the proportion of the United States, including Canada, had increased from 42 to 54 per cent, and the share of Europe had declined from 57 to 43 per cent. In the export trade the change was less discouraging, since the United States as yet exports a comparatively small proportion of its output. The shift within Europe is no less striking. Germany and Great Britain have been the chief losers, the former on account of the territorial changes involved in the loss of the war, and the latter owing to the falling off in demand for war supplies and shipping and the increased cost of production. On the other hand, France and Belgium not only increased their capacity through the territorial realignment, but also became more formidable competitors by reason of currency depreciation. It is estimated by some German writers that the steel consumptive capacity of Germany toward the end of 1925 was about half of the pre-war capacity; the curtailment of production ordered by the German raw steel cartel from August, 1925, to June, 1926,

was 35 per cent, but it is claimed that some of the larger plants were running only at 40 to 50 per cent capacity. This was a serious situation for an industry of the basic character of steel, and while reflecting the general loss of productivity, was also partly due to the post-stabilization crisis from which Germany was suffering at that period. If we add the disruption caused in the whole traffic movement between Rhenish Westphalia and Lorraine, Luxemburg, and the Saar, the threatened separation of the Saar industries from their German affiliations, and the inability of southern Germany to get its supplies from Lorraine, it becomes quite clear that Germany had good reasons for taking the initiative in organizing the steel cartel. In the case of France, the primary factor was probably the desire to take care of the output of Lorraine and the Saar, which, together with Luxemburg, were cut off from the free German market on January 10, 1925, upon the expiration of the five-year term of free admission into Germany provided for by the Treaty of Versailles. An additional factor was the desire to settle the commercial relations with Germany, as it was certain that the organization of the steel cartel and the method of disposing of the Lorraine and Saar products were the indispensable preliminaries for the conclusion of the Franco-German commercial treaty.

The delay in reaching an agreement was due not only to the difficulties of overcoming the lingering political resistance, but also in adjusting the purely technical points involved. There was first the question of the so-called "contingent agreement" (*Kontingentsabkommen*), which was to fix the proportion of the steel output of the Saar, Lorraine, and Luxemburg to be admitted into the German market. As was pointed out, the free admission of the products of those territories into Germany, as fixed by the Versailles treaty, expired on January 10, 1925. The five-year period proved insufficient to enable the trade of the territories to adjust itself to the new channels, and the problem of disposing of their steel production was still of great concern to the French in 1925. German production had already increased through the construction of plants in Westphalia to make up for the losses involved in the separation of Lorraine. In the case of the Saar, there was the additional complication involved, on the one hand, in the desire of the German producers to keep Saar iron and steel output tied up with

the German domestic cartel system and, on the other hand, in the fact that the Saar competitive capacity was affected, like that of France, by the currency-depreciation factor. The German negotiators, realizing the desire of the French producers to settle the problem of the disposal of the production of the new territories, made the solution of this problem contingent upon the conclusion of the steel cartel, and the two agreements were negotiated simultaneously. There was also, of course, the contingent understanding regarding the commercial treaty, as shown by the provisions of the international steel cartel and, according to some German authorities, a definite commitment as to certain concessions on German steel manufactures in the French tariff.

As finally settled, the iron and steel production of the above-mentioned territories to be admitted into the German market will amount to about 15 per cent of the total German production, of which 3.75 per cent was for Lorraine, 2.75 per cent for Luxemburg, and the remainder for the Saar, with an undertaking on the part of France and Luxemburg not to exceed the 6.5 per cent ratio of exports to Germany. There is no tariff concession involved, and the products are to be handled by the German sales cartels in the same way as domestic products. In order not to interfere with the old connections of the South German industries, it was provided that orders from German consumers may be transmitted direct to the producers of Lorraine and Luxemburg. As the Saar plants belong to the German cartels, their quotas will be handled exclusively by those organizations.

Character of the agreement

Briefly stated, the international steel cartel proper provides for the fixing of the total output of the participating countries, to be determined quarterly; for quotas for the various countries, fixed for the duration of the agreement, but varying, up to a certain point, with the total output; for the payment of a fixed tonnage fee on the basis of production, penalties for excess production and indemnities for underproduction up to a certain point. It does not provide for price-fixing, nor did the original agreement make any distinction between production for domestic or foreign consumption (embodied later as a result of German protest). It contains numerous provisions for denunciation — seven,

according to one German authority — and its duration is limited to four and a half years, until April 1, 1931. It is evidently of a provisional character, calculated primarily to put a stop to abnormal conditions very detrimental to Germany in particular, and recognized as the basis for a series of subsidiary cartels involving the fixing of prices and perhaps division of markets. There is no question that the original agreement involved considerable concessions on the part of Germany, induced probably by the hope of later modifications under the pressure of changing conditions that would eliminate some of the temporary advantages enjoyed by its chief competitors.

One of the most difficult technical problems was presented by the choice of a basis for the total standard production and the fixing of quotas for the participating countries. In 1925, while Germany was utilizing about 50 per cent of its steel plant capacity, France was working at about 75 per cent capacity. In 1926, the French production still further increased, under the stimulus of the franc depreciation, while German production underwent a further slump, especially during the early part of the year. Belgium was affected adversely by the strike during a part of 1926, and held out for a higher quota than it was entitled to by its production during the first quarter of 1926, which was finally selected as a basis, with certain modifications.

The quotas as finally fixed provide that, on the initial basis of 25,287,000 tons per year, Germany starts with a quota of 40.46 per cent; its quota gradually increases to 43.18 per cent, as production is increased to 29,287,000 tons, where the quotas become fixed; France's quota, on the other hand, is reduced from 31.91 to 31.19; while the share of Belgium, which remains constant at 295,000 tons monthly, regardless of changes in total production, undergoes a decrease of from 12.58 to 11.63 per cent. This brings out clearly the fact that Germany was figuring on an improvement in the steel demand that would raise the total production above the minimum of 25,287,000 tons, since the first quarter of 1926, which was taken as a basis, was a very critical period for the German steel industry.

The provisions regarding contributions, fines, and compensations are also very interesting, and show the fine system of checks and balances that was found necessary in order to bring about the agreement. First, we have the fee of a dollar per ton from every participating country,

which was expected to perform the double function of providing a fund for operating expenses and also to raise the selling price of steel in view of the problematic nature of the refund. The second object has not been attained, and it is generally admitted that, with the exception of a short period after its organization, the cartel has not been much of a factor in the price situation, owing largely, it is claimed by the German representatives especially, to the loose nature of the agreement and the failure to organize the subsidiary selling organizations for which the main cartel was supposed to form the basis. For every ton produced above the assigned quota a penalty of four dollars is levied; this serves to provide funds for the compensation of two dollars for every ton below the assigned quota, with certain limitations that serve to reduce the rate of compensation after the underproduction reaches 10 per cent of the quota. Production, fines, and compensations are calculated every quarter and the funds are distributed every six months, according to actual production, as regards the one dollar per ton fee, and according to quota, as regards any surplus remaining after the payment of indemnities.

As was easily predicted, Germany has been the chief contributor to the fund as a result of its excess production, largely for domestic consumption, while France, whose domestic consumption has fallen off considerably since the organization of the cartel, has been receiving almost the full amount of Germany's net contribution. Thus, for the first semiannual accounting period, October, 1926, to March, 1927, Germany's net contribution amounted to $3,959,000, or at the rate of nearly 51.5 cents per ton produced, while France received during the same period $3,415,000, or about 81.3 cents per ton. During the second six-month period Germany's net payments amounted to $3,387,000, or at the rate of 41.5 cents per ton produced, while France's net gains amounted to $3,264,000 or at the rate of 79 cents per ton produced, the decrease being due to the reduction in fines for overproduction for domestic German consumption. To put it in another form, of the total net contribution for the first year from the original members of the combine, Germany contributed about 95 per cent and France received about 86.3 per cent, the remainder going to Luxemburg. During the period under consideration, Germany overproduced to the extent of 3,372,000 tons, while France fell short of its quota to the extent of 686,000 tons.

Another provision of the agreement deserving attention is the one relating to conditions for denunciation. According to a German student of the subject, there are no less than seven contingencies under which the agreement can be denounced. Each participating country may give notice of denunciation during the period from May 1 to October 31, 1929; the agreement may be denounced in case of an increase in tariff rates on steel products by Germany; a third contingency which comes into effect after April 1, 1927, is in case of one of the participating countries discriminating against the products of another in the absence of a commercial treaty; a fourth one hinges upon the lapse of the agreement relating to the distribution of the steel output of Lorraine, Luxemburg, and the Saar (*Kontingentsabkommen*); the development of new competition exceeding a certain limit may give rise to denunciation and the same applies when the semiannual quota falls below 13,139,000 tons, or when the output of the participating countries in relation to the total output of Europe declines during a six-month period by 5 per cent as compared with the first quarter of 1926. It is quite evident that in its organization, at least, the cartel is still in a decidedly fluid state, and that pending further developments it is not to be regarded as a permanent institution.

While the cartel has developed certain significant symptoms during its first year of existence, it has not greatly extended its scope as regards the number of participating countries. The inclusion of Czechoslovakia, Austria, and Hungary toward the end of 1926 involves only an additional quota of 7.272 per cent; the joining of Poland, still pending, is of comparatively little significance from an export standpoint. The most interesting possibility, the participation of Great Britain, is beset with so many difficulties resulting largely from the lack of domestic organization that it is not generally regarded as a factor of immediate significance. The same is true to a certain extent of the organization of the subsidiary selling cartels which are regarded by the Germans as the *raison d'être* of the basic organization. The fundamental difficulty seems to lie in the difference in the organization of the selling end as between Germany on the one hand and France and Belgium on the other. The high degree of organization in the domestic market makes it possible for Germany to commit the whole industry as regards fixing of prices and division of territory for steel products. In France and Belgium, on the other hand, there has developed

during the immediate post-war period a considerable degree of decentralization in regard to exports, and the existing organizations and affiliations are not very receptive to the idea of a central selling bureau; the fixing of the quota for the various steel products also presents considerable technical difficulties. It is claimed that the European rail cartel (*Erma*) is the only international steel product cartel in good working order. Incidentally, it may be noted that Great Britain is a party to the *Erma*, which has replaced the pre-war agreement of the same type. The drawn-wire cartel has just been signed, after considerable friction, while the selling organization for shapes and *Halbzeug* (billets, blooms, sheet bars, etc., for rolling) is still in process of formation.

Influence of the cartel

The steel cartel has now been in existence for a year, and it is possible to form some idea as to the way it has been functioning and the lines of its probable future development. The immediate effect of the cartel was expected to be an increase in export prices that would enable the German producers to participate in the export trade on a more profitable basis and overcome the exchange dumping on the part of the French and Belgian producers. The public utterance of some of the more prominent iron and steel men in Germany after the negotiation of the cartel, clearly indicates that they regarded the one-dollar tonnage fee as an important factor in the price situation and the four-dollar fine as an almost absolute deterrent to overproduction. The experience of the first year has proven that both assumptions were incorrect. After the flurry during the first quarter of the cartel year, when prices went up considerably, partly for reasons not connected with the cartel, the price situation has been dominated very largely by the countries whose dumping activities the cartel was supposed to stop, and the German producers, in order to obtain relief from the fines for overproduction, have found it necessary to commit themselves to a sharp restriction of their export activity.

The attitude of the cartel toward fixing the total production quota shows that during most of the period it did not consider itself sufficiently strong to control export prices. Its only weapon for affecting prices in the present stage of the cartel's career is through control of production quotas, but during most of the year the fixing of the total quotas

was influenced primarily by the desire to ease the burden of fines imposed on German producers for excess production, attributable largely to increase in domestic demand, and not for purpose of adjusting production to demand, which is supposed to be the cardinal principle in cartel policy.

The first quarter started out with an annual rate of 29,287,000 tons, or 7,322,000 for the quarter; the gross overproduction was 725,000 tons, of which Germany contributed 575,000. During the second quarter, when the total quota was fixed on the basis of 27,787,000 tons, the gross excess production was 1,149,000 tons, to which Germany contributed 959,000 tons. During the second half of the cartel year, when the total quotas remained at 29,287,000 tons, the gross overproduction was 2,133,000 tons, of which Germany contributed 1,838,000 tons. During the entire year France underproduced to the extent of 686,000 tons. In spite of the fact that the upward movement in the German demand and the falling off in the French activity under franc stabilization during the period immediately preceding the inauguration of the cartel clearly foreshadowed the possibility of excess production by Germany, and consequently the payment of fines, the German producers began to voice their protests against the working of the cartel at a very early stage, and there appeared numerous reports regarding the intention of the German producers to withdraw; there were also many statements in responsible German papers about the effect of the fine system as a subsidy on the part of German producers to maintain the French producers in their artificial export activity. The basis of the German complaint was that while the principal object of the cartel was to eliminate excessive competition in export markets, the German producers were being penalized for excess production due largely to domestic demands, while the proceeds from the fines went almost entirely to a country whose artificially stimulated exports were a decisive factor in keeping world prices at a level that largely eliminated Germany from the export field. Attempts to obtain a reduction in the fine for excess production proved unsuccessful during the first stages of the discussion, and the only relief obtained for the third quarter was an increase in the total production quota to a basis of 29,287,000, which also meant an increase in the German quota to the maximum of 43.18 per cent. This quota, which has been maintained ever since,

regardless of the fluctuation in the demand of world markets, was granted in return for an undertaking on the part of Germany to restrict exports.

It was quite natural that this situation, combined with the failure of the cartel to perform its primary function of raising prices, failed to satisfy the German producers, who kept up their agitation for further relief from the burdensome and one-sided payment of fines. At the June meeting of the cartel German wishes were met partly by the adoption of the principle of dividing German production into two classes, one for domestic consumption with a reduced fine of two dollars per ton for overproduction, and the other for export, with the original fine of four dollars per ton for excess production; this reduction was to affect production for the third quarter of 1927 (and conditionally the second), and the separation between the two classes was to be made on the basis of 72 per cent for domestic consumption and 28 per cent for export. German producers undertook to restrict their exports to the level of the second quarter of 1927. Some attempt was also made toward meeting the German claims for the extension of the effectiveness of the cartel through the organization of subsidiary cartels, and a special committee was appointed to work out the plan for a selling organization for steel shapes and semi-finished products. At the September meeting of the cartel a still further concession was made to Germany by a reduction of the fine for overproduction for domestic consumption from two dollars to one dollar per ton; the total production quota was retained at 29,287,000 tons. Some further progress was made in the organization of selling cartels for certain steel products, largely under pressure from the German representatives, but nothing definite as to the final form and scope of the organization has been announced; the most tangible achievement seems to be an agreement on a basis for determining export quotas for shapes and billets, blooms, sheet bars, etc., for rolling.

Another encouraging development is the recent formation of a French cartel for the sale of such steel products, which is regarded as a preliminary step for the formation of an international sales cartel. The March, 1928, meeting in Paris did not, however, take any action on the sales comptoirs question, and merely continued the quotas for the second quarter of 1928. The concessions granted to Germany are contingent

upon Germany's partial withdrawal from the export market, which, considering the present price situation and the extent of the domestic demand, does not involve any considerable sacrifice on her part. A change in Germany's domestic situation, involving a falling off in the demand, and a consequent increase of interest in export markets, is likely to affect the attitude of the other partners toward concessions to Germany as regards fines and total production quotas.

To sum up, while the continental steel cartel is undoubtedly an important development and may serve as a basis for an extensive organization of the continental production and exportation of steel products, it has so far failed to achieve its principal object of increasing steel prices and the organization of selling cartels for subsidiary products. Its present structure and the compromises it has been forced to resort to in order to retain the German membership would seem to indicate that it has still far to go to become the influential factor in the world steel situation that it was proclaimed to be at the time of its foundation.

Some recent cartels

One of the latest instances of international cartel development is the *Continental Linoleum Union*, a Swiss holding company, controlling the *Deutsche Linoleumwerke* (the German linoleum trust), *Giubiasco* of Switzerland, and *Forshaga* of Sweden, the latter controlling a plant in Latvia and one in Norway. The three operating concerns have also entered into an agreement for the pooling of profits on the basis of nominal capital. It is estimated that the productive capacity of the German combination amounts to about three-fourths of that of the entire cartel, which will give Germany a controlling position in the international combination.

The latest development in the international cartel field is presented by the zinc cartel, organized on May 7 (retroactive to May 1), 1928, at a conference at which practically all European producing countries were represented, including the American interests controlling the Polish zinc production. The principal provision of the cartel is to the effect that in case of a drop in the price of zinc below a certain level, to be fixed later, the production during the four-month period following the decline must not exceed that of the preceding period of four months. The cartel is to

remain in effect until the end of the year, subject to renewal for six-month periods unless denounced on two months' notice. The participating countries are Belgium, Holland, France, Germany, Poland, Great Britain, and Spain. It is probable that an attempt will be made to obtain the adherence of American producers.

The international copper cartel, Copper Exporters (Inc.), is of particular interest on account of its American origin and leadership. Organized October 11, 1926, as a Webb-Pomerene corporation, it comprises the American copper producers, with one comparatively unimportant exception, the Katanga mines in Belgian Kongo, the British Metals Corporation (including the Rio Tinto mines) and a number of subsidiaries and important sellers of copper, with a total control of 90 per cent of the world copper production. The British Metals Corporation, organized after the war with Government participation to eliminate German influence in the British metal market, was one of the original members of the cartel, but withdrew soon after the organization, on account of alleged withholding of approval by the British government. This reason did not find ready acceptance in all quarters, and it was intimated that the announced purpose of the cartel to eliminate speculation and middlemen had something to do with the withdrawal. The recent return of the British Metals Corporation is ascribed to the expiration of its contract with Katanga, one of its chief sources of supply, whose output, like that of the other members, is handled by the cartel agencies. The copper cartel is a price cartel, without any direct limitation on output or division of markets, but with a strict control over sales channels. The price control extends only to the markets outside of the United States, as no such control could be exercised in this country without a violation of the anti-trust law. This factor has given rise to a certain amount of criticism on the part of foreign consumers and sellers who claim that the American consumers are given a competitive advantage in export trade. While it is still a loose organization with a indefinite time limit and short notice for withdrawal, the cartel claims to have attained its chief objects of eliminating speculation and stabilizing the price at a more remunerative level. One of the effects of organization has been a practical elimination of the London copper market as a factor of international importance.

The international cartels described in the preceding pages do not cover by any means all the international organizations of that character. There are quite a number of international price cartels involving ferro-alloys, bismuth, white lead, mercury, quinine, etc., and certain metals and chemicals which are very important factors in international trade. It is believed, however, that the cartels described in detail cover the most important products and are sufficient to indicate the magnitude of the movement.

The international cartel must be distinguished from the large national combinations with strong international affiliations of a financial or commercial character. We are referring to the extensive petroleum interests, with their international ramifications, the big combinations in the electrical industry, and the so-called Swedish-American Match Trust, which in spite of its connections with the financial markets of the United States and Great Britain, and its world-wide industrial and commercial interests, is very closely controlled by the Swedish interests. These units, while of great importance in the international concentration movement, cannot very properly be designated as international cartels or trusts, since their international holdings partake more of the character of branches and subsidiaries than of independent units joined under a central organization.

Cartels at the Geneva Conference

It will be recalled that the agenda of the World Economic Conference which met at Geneva in May, 1927, included the subject of international cartels or "industrial ententes." It was expected by some of the prominent advocates of the conference that the topic would attract a good deal of attention and result in some definite action of an international scope. A considerable amount of material on the subject was brought together by the preparatory committee. As it turned out, however, international cartels received only minor consideration in comparison with the attention given to commercial policies, and the resolution on the subject is rather indefinite, indicating clearly that the movement has not progressed far enough to call for international control.

The Germans and the British were opposed to any recommendation for the creation of an international body for the control or supervision of

cartels. Their thesis was that the international cartels were still on trial, that national legislation on combinations varies from country to country, that the usefulness of cartels in the present economic situation may be questioned, and that publicity and a certain amount of watching by the economic organization of the league should be sufficient. The French, particularly Loucheur, were in favor of a rather definite indorsement of the cartel principle and also of a more definite mandate for supervision and control. The Italians were somewhat inclined to side with the French. Some of the smaller countries, with the exception of Belgium and Austria, among others, expressed some fear of the domination by cartels; labor was naturally in favor of strong central control. The Russians stated that they were interested in the question as they were associated with certain international combinations in the marketing of their flax, platinum, mineral oil, etc.

The resolution on cartels, while somewhat of a compromise, may be considered as an expression of the attitude of the German-British wing of the committee rather than the Franco-Italian. It starts out by calling attention to the divergent views of the delegates and states that combinations should be judged by the spirit in which they are carried out rather than on the basis of any abstract principles. Since this form of organization can be used only in certain industries lending themselves to mass production and standardization, the cartel, it is stated, cannot be regarded by itself as a solution of the economic problems of the world; where it can be applied, under proper reservations, it is beneficial by eliminating wasteful competition and permitting a reduction in cost of production through the application of more efficient methods in employment of industrial equipment, plant specialization, etc.; it opposes cartels with monopolistic tendencies, those restricting supply of raw materials, bringing about artificial rise in prices, or reduction in the economic equipment of a country below its indispensable needs; there is also a disapproval of a tendency to stereotype the present condition of production, either from the standpoint of technical progress or the distribution of industries among countries. The resolution is opposed to the establishment of any juridical machinery of control, calling attention to the small number of countries having specific legislation for dealing with national combination and to the divergent character of such legislation; there is, however, a statement in favor

of recourse to arbitration and recommendation that the League of Nations should study the development of international industrial ententes, their economic and social effects, and publish from time to time data of general interest; there is also a statement regarding the value of publicity as a check on abuses. No provision against government participation in cartels was embodied, largely on account of the fear of labor opposition, although the Germans and the British were evidently in favor of such a provision and the American delegates expressed opposition to such government activities.

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